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REPORT ON
CONTRACT AND
INTERNAL AUDITING
WITHIN THE
DEPARTMENT OF DEFENSE

AICPA ADVISORY COMMITTEE
TO BLUE RIBBON DEFENSE PANEL



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MAY 1970
REPORT A-5



REPORT TO
BLUE RIBBON DEFENSE PANEL
ON
CONTRACT AND INTERNAL AUDITING
WITHIN THE DEPARTMENT OF DEFENSE

SUBMITTED BY
THE AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS
ADVISORY COMMITTEE TO BLUE RIBBON DEFENSE PANEL

PRIVILEGED INFORMATION
FOR THE BLUE RIBBON DEFENSE PANEL



AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS

666 FIFTH AVENUE
NEW YORK, N Y 10019

May 28, 1970

Mr. Gilbert W. Fitzhugh
Blue Ribbon Defense Panel
Room 3E827
Pentagon
Washington, D. C. 20301

Dear Mr. Fitzhugh:

We are pleased to transmit our report on the auditing function in the Department of Defense which the Blue Ribbon Panel asked us to undertake last October.

As you know, this study was made on a voluntary basis by 33 members of the American Institute of Certified Public Accountants. These members were organized in an Advisory Committee having responsibility for overall decisions and recommendations, and six subcommittees which conducted studies of the auditing function in major areas of the Department of Defense.

Our report is in two parts. Part I deals in general terms with the auditing function throughout the Department of Defense and contains the overall recommendations of our Advisory Committee. It also includes a summary of the recommendations of the six subcommittees. Part II consists of the detailed reports of each of the subcommittees: the Office of Secretary of Defense and the Defense Supply Agency, the Army, the Navy, the Air Force, the Defense Contract Audit Agency, and Electronic Data Processing Auditing.

We received the complete and willing cooperation of people at all levels in the Department of Defense. It was a pleasure to work with them.

Our Advisory Committee and our subcommittees will be happy to meet with you and the Blue Ribbon Panel to discuss our report. We will, of course, be equally pleased to meet with representatives of the Department of Defense for this purpose.

Mr. Gilbert W. Fitzhugh

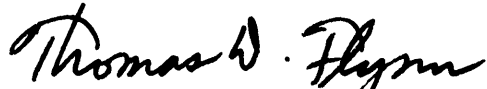
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May 28, 1970

I am submitting the accompanying report on behalf of the Advisory Committee and all of our subcommittees. The names of the members of these committees, their location, and their firm affiliation are listed in the attachment to this letter.

We all express our appreciation to you and to your Panel for the opportunity and the pleasure of working on this task.

Very truly yours,

A handwritten signature in cursive script that reads "Thomas D. Flynn". The signature is written in dark ink and is positioned above the printed name and title.

Thomas D. Flynn, Chairman
AICPA Advisory Committee

THE AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS
ADVISORY COMMITTEE TO BLUE RIBBON DEFENSE PANEL

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* * * * *

Ben G. Huff, Advisory Committee Administrative Coordinator -
Arlington, Virginia

* * * * *

Leonard M. Savoie, AICPA, ex officio

Thomas R. Hanley, AICPA, ex officio

INTRODUCTION

At the request of the Blue Ribbon Defense Panel, the American Institute of Certified Public Accountants (AICPA) agreed in October 1969 to undertake a study of the auditing function within the Department of Defense (DOD). An Advisory Committee consisting of fifteen members of the AICPA was established to conduct this study. In the interest of efficiency it was decided that the Advisory Committee should concern itself mainly with overall policy matters and recommendations, with on-site studies conducted by subcommittees whose areas of interest would generally correspond to the major auditing organizations of the DOD. Six such subcommittees were formed, with at least two members of the Advisory Committee serving on each subcommittee. The subcommittees' areas of interest are as follows:

1. The Office of the Secretary of Defense (OSD) and other DOD agencies, including the Defense Supply Agency (DSA)
2. The Army
3. The Navy, including the Marine Corps
4. The Air Force
5. The Defense Contract Audit Agency (DCAA)
6. Electronic Data Processing (EDP) and Computers

The EDP subcommittee does not correspond to any of the DOD organizations. The Advisory Committee believed, however, that its study and understanding of the use of EDP throughout the DOD would be facilitated by having a separate subcommittee composed of CPAs having special knowledge of and experience with computers and computer auditing. One member of this special EDP subcommittee was assigned to each of the other subcommittees to act as technical advisor in this rapidly developing and complex area and to assist in coordinating the activities of the various subcommittees and avoiding duplication of effort in EDP-related areas.

The first task was to find out how the DOD is organized to carry out the auditing function, and to determine how that function is actually being carried out in the DOD's various military departments and agencies. To accomplish this, the members of our subcommittees spent many hours interviewing a substantial number of people at all levels, both civilian and military, with an interest in audit findings, observations, suggestions, and reports. This entailed visits to various locations in the United States, a visit to Europe, and a review of audit policy directives, reports, plans, procedures, manuals, and workpapers. The persons interviewed, the locations visited, and other data are listed in exhibits to the individual reports submitted by the subcommittees.

The second task was to evaluate the subcommittees' observations and to make recommendations for improvement. Our review was, of necessity, general in scope because of the vast size of the DOD and the impossibility of conducting an in-depth

study within the time available. We are satisfied, however, that our studies have been sufficiently comprehensive to support reasonably the findings and recommendations described in this report.

The basic objective of our Advisory Committee has been to offer constructive and useful suggestions and recommendations to the Blue Ribbon Defense Panel and the Secretary of Defense which will contribute to improving the efficiency and effectiveness of the DOD in carrying out its responsibilities and missions on behalf of the citizens of the United States.

This report consists of two parts. Part I deals in general terms with the auditing function throughout the DOD and contains the overall recommendations of the Advisory Committee. It also includes a summary of the individual subcommittee recommendations which are dealt with more fully in Part II. Part II consists of the detailed reports of each subcommittee on its particular area of interest: the OSD and DSA, the Army, the Navy, the Air Force, the DCAA, and EDP auditing.

PART I

AUDITING IN THE DEPARTMENT OF DEFENSE

GENERAL EVALUATION

RECOMMENDATIONS OF THE ADVISORY COMMITTEE

SUBCOMMITTEE RECOMMENDATIONS

AUDITING IN THE DEPARTMENT OF DEFENSE

In studying the auditing function in the DOD, the Advisory Committee conceived of its task in the following terms:

To undertake a review and evaluation of the principal policies, plans, and procedures relating to the internal audit and contract audit activities of the DOD, including:

- (1) organizational structure,
- (2) the nature and extent of audits and the adequacy of auditing procedures,
- (3) personnel management,
- (4) the quality, timeliness, and usefulness of audit reports and the implementation of audit recommendations, and
- (5) audit relationships within and external to the DOD.

EXISTING AUDITING STRUCTURE

At April 30, 1970, the DOD had seven separate audit organizations with a total complement of 842 military and 5,687 civilian personnel and annual expenditures totaling over \$90 million. These organizations and their personnel at April 30, 1970 were as follows:

	<u>Civilian</u>	<u>Military</u>
<u>INTERNAL</u>		
1. OSD - Director for Audit Policy	15	-
2. OSD - Deputy Comptroller for Internal Audit	101	2
3. Defense Supply Agency-Auditor General	129	-
4. Army Audit Agency	839	81
5. Navy - Auditor General	518	54
6. Air Force - Auditor General	545	705
	<hr/>	<hr/>
	2,147	842

<u>CONTRACT</u>		
7. Defense Contract Audit Agency	3,540	-
	<hr/>	<hr/>
	<u>5,687</u>	<u>842</u>

The internal auditing effort at the OSD level is carried on by two different groups. One group, the Office of Director for Audit Policy, has responsibility for developing and providing audit policy guidance for all audit organizations in the DOD. A second group, called the Office of the Deputy Comptroller for Internal Audit (DCIA), reports to a much

higher level of authority in the DOD and provides a quick audit response on matters of special interest to the Secretary of Defense and his staff. This second group is also responsible for audits of programs and procedures which involve more than one military service or agency, for audits of the Military Assistance Program, and for audits of certain other DOD components.

The internal audit groups of the three military departments (Army, Navy, and Air Force) and of the DSA are largely autonomous. There is relatively little interchange or contact among these internal audit groups. The hiring, training, and assignment of audit personnel to specific tasks are handled by each military department or agency with a minimum of guidance or direction from the Office of the Secretary of Defense.

The internal audit organizations of the Army and the Navy are organized along similar lines, with relatively large regional, area, or resident offices located throughout the United States and overseas. The internal auditors of the Air Force, unlike those of the Army and the Navy, are stationed at numerous air bases and installations as "resident" auditors. This results in a wide dispersion of audit personnel in small, relatively permanent groups, called Auditor General Resident Offices (AGROs), typically consisting of five or six persons.

The Defense Supply Agency (DSA) manages the procurement and distribution of supplies common to all the military departments and Defense agencies and provides related contract administration services. The personnel of the internal audit

organization of DSA are located at major supply centers, depots, and support or service centers throughout the United States.

The Defense Contract Audit Agency (DCAA), which employs over half the audit personnel in the DOD, is responsible for performing all contract auditing for the DOD. In so doing it provides accounting and financial advisory services regarding bid proposals, contracts, and subcontracts to all DOD components engaged in procurement and contract administration. The DCAA functions as a virtually autonomous organization, being responsible for the hiring, training, and direction of its personnel, subject only to policy and budgetary controls of the OSD. Under the present DOD organization, only the DCAA has the responsibility of auditing the records of defense contractors.

The DCAA also provides contract audit services to approximately eighteen other Government agencies on a reimbursable basis. Approximately 14% of the total effort of the DCAA is expended for these agencies.

While there are seven separate audit groups in the DOD, it should be noted that the major departments and functions which they serve are each larger than almost any single business enterprise in the United States. In the discussions in this report relating to "centralization" of the audit function, it should be borne in mind that centralization already exists within very large and complex components of the DOD.

NATURE OF AUDITING EFFORT

In the DCAA, the auditing effort is confined almost entirely to the cost accounting and financial systems of contractors. This is in marked contrast to the kind of auditing performed by the internal audit groups of the DOD. These groups are concerned largely with operational or management-type audits in which the auditor reviews factual information concerning the manner in which a given mission or task is being carried out.

The terms "operational auditing" and "management auditing" have come into common use to describe the extension of internal auditing to all operations of an organization, rather than merely the financial and accounting areas. Internal auditing as a concept was originally limited to the review of financial matters. However, as organizations have grown larger and more complex, both industry and government have recognized the need to expand the internal audit function to include the independent appraisal of all operational activities in order to provide management with information on the effectiveness and efficiency with which such operations are being performed.

The DOD internal auditor, using policies or standards of measurement set by others, attempts to determine whether a particular mission or task is being effectively and efficiently carried out. A mission might involve, for example:

- the operational readiness and performance of helicopters in Vietnam;
- the production and procurement of motion pictures and related pictorial services;

- the performance of depot-level maintenance on military aeronautical equipment;
- the management of motor vehicles in the continental United States;
- materiel support to Fleet ballistic-missile submarines; or
- the operation of dining halls.

Most such audits have as their principal objective the providing of useful information and recommendations to appropriate levels of management to enable them to respond promptly in taking corrective action and in improving the performance of their missions or commands. In this sense, internal auditing should be a highly effective tool for management. In addition to providing aid to each level of management, internal auditing also has the responsibility of safeguarding the assets and the interests of the DOD at all levels. Thus, significant findings should not be filtered out at lower levels of management. It is important that all audit findings and recommendations, and information as to their subsequent disposition, reach the appropriate higher level of management -- including if necessary, the Secretary of Defense -- without hindrance.

The following tabulation shows the internal auditing effort by type of audit for the three military departments and the DSA for fiscal year 1969:

<u>Type of Audit</u>	<u>Army</u>	<u>Navy</u>	<u>Air Force</u>	<u>DSA</u>
Supply management	23%	19%	26%	46%
Management of maintenance and repairs	10	9	7	-
Procurement and contract administration	13	15	9	24
Personnel management and payrolls	13	7	9	7
Comptroller services (Accounting and financial)	12	19	17	11
Support services	10	11	9	2
Cost reduction program	7	7	7	5
All other	12	13	16	5
	<hr/>	<hr/>	<hr/>	<hr/>
Total	100%	100%	100%	100%
	<hr/>	<hr/>	<hr/>	<hr/>
Total direct man-years	535	337	724	77
	<hr/>	<hr/>	<hr/>	<hr/>

As might be expected, the auditing effort at the OSD level is diverse. The Office of Director for Audit Policy is a service group. It performs no audits and is a very small group which deals with broad policy matters, makes digests of audit reports of all internal audit groups for presentation to top levels of OSD, makes limited appraisals of DOD internal audit groups and undertakes some research on new audit techniques. The Office of Deputy Comptroller for Internal Audit, on the other hand, makes a wide variety of audits. During 1969, 51% of its effort was devoted to special DOD-wide audits, 19% to audits of DOD components, and 30% to audits of the Military

Assistance Program.

In addition to the internal audit groups, there are various other groups that perform audit work. The largest of these are the internal review groups at Army and Navy installations. These people are part of the staff of the installation commanders. They act as trouble-shooters for the commanders and perform a variety of other functions, including in many cases audits of payrolls and non-appropriated funds. It is difficult to determine exactly who is engaged in such internal review activities because classification and nomenclature vary, but it is estimated that more than 1,600 persons are so engaged in the Army and the Navy. In the Air Force there is no separate group with responsibility for internal review, as there is in the Army and the Navy. Internal auditors in the Air Force perform not only the functions normally associated with those of the internal auditor, but also those of the "internal reviewer."

While certain of the duties of internal reviewers in the Army and the Navy are to some extent similar to the lower-level duties of internal auditors, we did not find much evidence to indicate that in practice there was any substantial duplication of audit work. However, we did not study the problem in depth, and we believe that further study would be appropriate.

We made only relatively brief reviews of the DOD Inspector General organizations and the procurement management review groups. The Inspector General organizations are

concerned primarily with military readiness, morale of military personnel, condition of physical facilities, investigative work, and compliance with established policy or regulations. Although some aspects of management auditing are performed by the Inspector General organizations, such reviews represent only a minor part of their mission and lack the depth of those made by the internal auditors. Our conclusion is that the Inspector General reviews do not constitute a significant duplication of the work done by the present internal audit groups.

The procurement management review groups are composed largely of specialists in procurement and are concerned solely with the DOD procurement process. They report to the procurement policy officials in OSD, the military departments, and DSA. As in the case of the Inspector General organizations, we have concluded that the work of the procurement management groups does not result in significant duplication of the work of the internal auditors.

We should point out at this juncture that we did not undertake to review or evaluate the auditing of non-appropriated funds, since the DOD currently has in process a study of the nature and extent of audits required in connection with such funds.

GENERAL EVALUATION

On the basis of our study, we have concluded that the DOD audit groups are performing their assigned missions at clearly acceptable levels, ranging from satisfactory to good. In general, the groups are staffed by competent people who are sincerely interested in doing a creditable and constructive job. Their audit findings appear to be reliable, and their suggestions and recommendations are of good quality. They serve the DOD and its various components well and contribute to improved performance, the value of which appears to exceed substantially the cost of operating and maintaining these audit groups. Evaluation of the audit groups has been the responsibility of our subcommittees, and further comments concerning the performance of each of the seven audit groups are included in the individual subcommittee reports contained in Part II.

The above general evaluation does not mean, of course, that there is not substantial room for improvement. In an environment of significantly changing technology and conditions, it is understandable that this should be so. As we see it, there are a number of factors, particularly in the area of internal auditing, which are preventing the auditing function within the DOD from reaching the level of efficiency and competence that we believe can be obtained.

These are:

1. The internal auditing effort at OSD level (i.e., at the level above the military departments and Defense agencies) lacks sufficient size and power to provide the coordination, audit coverage, and leadership which we believe to be desirable.
2. There is insufficient uniformity of audit policies and procedures, and in their implementation, throughout the DOD. The audit policy group at OSD level appears to have a limited impact on the other audit organizations within the DOD.
3. There is a need to upgrade the status and independence of the internal audit organizations.
4. There are insufficient career opportunities for civilians in professional capacities at all levels of internal auditing.
5. There is substantial opportunity for improved and more efficient education and training of professional audit personnel through the use of joint facilities and programs.
6. There are insufficient specialists, particularly those with experience in EDP auditing and statistical sampling, in the internal audit groups.

7. In general, internal audits, both operational and financial, take longer than necessary because of too extensive investigation and study of the underlying facts. This tendency toward "audit overkill" is fostered in part by the insistence of management at most levels on having an overabundance of proof before acknowledging the existence or the extent of a problem or a situation requiring correction.

RECOMMENDATIONS OF THE ADVISORY COMMITTEE

The most difficult recommendations with which the Advisory Committee has had to deal relate to the basic question of how the DOD should organize its total auditing effort. It is clear from the preceding summary that the DOD's present internal auditing effort is divided among a number of somewhat autonomous audit groups, each attached to a distinct and separate military department or Defense agency.

This arrangement has the important advantage of making the related audit group responsive to the needs of a particular military department or Defense agency and its management. Such responsiveness is particularly significant in view of the nature of the internal auditing performed by these audit groups. Most of the internal auditing is of the management or operational type, the primary objective being to assist management at various levels to do a better job by identifying problems and offering suggestions and recommendations as to how they might be handled more effectively. To accomplish such audits efficiently and expeditiously, it is important that there be good rapport between the auditors, the people whose activities are being audited, and management. The auditors need full cooperation; they should not have to dig out facts and information in a hostile and uncooperative environment. The time required to perform an audit will, in many instances, be increased

several-fold if the people in an organization do not genuinely aid the auditors. To build a sound, cooperative relationship, it is highly desirable that the audit group earn the respect, confidence, and trust of the whole organization for fairness, for competence, and for reliability in dealing with facts.

An even more important reason for retaining the present existing organizational approach to internal auditing in the DOD is to provide the military departments with an audit capability within their own organizations, thus enabling them to monitor the attainment of their objectives and policies and to insure that appropriate corrective actions are taken where necessary.

On the other hand, if there were a single internal audit agency within the DOD, or if there were substantially greater centralization of this function, the following advantages could result:

- Permit the establishment of a more efficient supervisory and management structure, thereby allowing better utilization of professional personnel in terms of recruitment, education, training, audit priorities, coverage, quality control, and the use of EDP and other specialists. It also would provide more attractive career opportunities for professional personnel.
- Upgrade audit independence and help to insure that matters of importance reach the Office of the Secretary of Defense without delay.

- Provide better coordination and control for the Secretary of Defense over DOD activities and functions which involve more than one military department or Defense agency, such as research and engineering, procurement, supply management, personnel, and financial management.

The Advisory Committee strongly recommends that the DOD move in the direction of further centralization of its internal auditing function. Our prime reason for this recommendation is that it will provide the Secretary of Defense with a much stronger capability for monitoring the management of the individual military services. To accomplish this, the Advisory Committee has concluded that the best course of action for the DOD to follow for the near term is as recommended below.

ORGANIZATION AT OSD LEVEL

- (1) An enlarged and strengthened internal audit organization should be established at the OSD level, headed by a highly qualified civilian audit administrator who should report directly to the Deputy Secretary of Defense.
- (2) This new office, which might be called the Office of Defense Internal Audit, should include the present functions and staffs of the Office of the Director for Audit Policy, the Deputy Comptroller for Internal Audit, and the Auditor General, DSA.
- (3) In addition to the existing responsibilities of the audit groups being combined, the new Office of Defense Internal Audit should direct its efforts toward:

- (a) Making more extensive reviews of the manner in which the internal auditing function is being carried out by the internal audit organizations of the military departments and Defense agencies. Greater use should be made of professional personnel at the OSD level to perform such reviews. This responsibility is presently assigned to the Office of the Director for Audit Policy, which lacks sufficient personnel to make such reviews in the depth and to the extent which the Committee contemplates.
 - (b) Making more internal audits of inter-service activities and unified commands with the use of its own personnel to a much greater extent than is presently being done.
 - (c) Providing much stronger coordination, monitoring, and follow-up of internal audit within the DOD of such functional areas as research and engineering, procurement, supply management, personnel, and financial management.
- (4) The audit staff of the new Office of Defense Internal Audit should be augmented by hiring, or by transferring from the present internal audit organizations of the military departments, sufficient internal auditors to enable the combined office to perform its expanded duties. The Advisory Committee believes that there should be further study to determine the number of personnel who should be transferred or hired. The Committee's preliminary estimate is that the staff of the new office should be increased by a minimum of 100 qualified professionals to supplement the present personnel of the audit groups which are to be combined.

The above recommendations are not intended to affect the present organizational alignment of the DCAA as a separate audit agency. Furthermore, it is also contemplated that the internal audit organizations of the Army, Navy, and Air Force will continue to provide an audit capability to their respective departments.

TRAINING

- (5) All formal internal audit education and training programs and courses within the DOD should be under the direction and control of the new Office of Defense Internal Audit.

At present, each of the military departments and the DCAA plans and provides its own educational and training programs, with little or no interchange with one another.

COST REDUCTION PROGRAM

- (6) To enable the determination of savings under the Cost Reduction Program to be made with greater reliability, the guidelines should be clarified and improved.

At present, a substantial percentage of the submissions under the Cost Reduction Program are rejected by audit. The application of the guidelines is complex and necessitates more auditing effort than should be required. For fiscal year 1969, the internal audit organizations within the DOD expended a total of 118 man-years, or almost 7% of their total direct time, validating submissions under the program.

OSD ADVISORY COMMITTEE

- (7) An advisory committee composed of knowledgeable civilians from industry and professional firms, serving on a voluntary basis, should be formed to advise the Secretary of Defense on internal audit policies and practices.

We believe that, to be most useful, the committee should consist of at least ten appointees, serving for three-year terms, with the terms so arranged that in any given year approximately two-thirds of the membership would consist of persons who had served for at least one year. At least two members each would have as their primary interest

the four auditing organizations serving the military departments and the OSD. This would account for eight members of the committee. We also suggest that two additional members be added who are experts on computers and computer auditing.

The members with primary interest in the military departments should have responsibility for becoming particularly knowledgeable about their auditing problems and should be available to consult with and advise the respective departmental Secretaries and the heads of their audit organizations on internal audit matters.

It would be expected that ordinarily the heads of the various internal audit groups within the DOD would attend the advisory committee meetings.

In addition to the above recommendations on consolidating and strengthening the auditing function at the OSD level, we believe that for the long term even further centralization in direction and control of the DOD audit organizations would be desirable, quite possibly to the point of full centralization. We are well aware, however, that the benefits of further or full centralization might be difficult to realize without at the same time losing some advantages of the present arrangement or of the organizational structure which we have recommended for the near term. The present auditing arrangements are working sufficiently well that we believe it would be unwise to adopt or put into effect any changes which do not have an excellent chance of success.

We believe that it would be better to operate under the proposed organization for a sufficient period of time to demonstrate that there has been a clear overall audit improvement in actual practice. It would seem unlikely that this

could be accomplished in less than two or three years of operation under the proposed organizational arrangement. This assumes that a topflight, highly qualified man would be selected to head the proposed Office of Defense Internal Audit, and that he would have the ability to lead and help his organization to earn the respect and confidence of management throughout the DOD.

When that has been done, it would then be appropriate to consider further audit centralization. The advisory committee which we recommend be appointed (Recommendation No. 7) could very well be helpful in considering this matter.

SUBCOMMITTEE RECOMMENDATIONS

In addition to the Advisory Committee's recommendations relating to the auditing function at the OSD level, our subcommittees have a number of recommendations which are dealt with more fully in Part II of this report, relating to the military department, Defense agency, or activity for which they had primary responsibility. A complete list of each subcommittee's recommendations is contained in the summary section of the individual reports. With minor exceptions, the recommendations of the subcommittees are summarized below.

To avoid repetition, this summary of the subcommittees' recommendations has been organized as follows:

- A. Recommendations applicable to the OSD and the DSA
- B. Recommendations applicable to all three military departments
- C. Recommendations applicable only to the Army and the Navy
- D. Recommendations applicable only to the Navy and the Air Force
- E. Recommendations applicable only to the Army
- F. Recommendations applicable only to the Navy
- G. Recommendations applicable only to the Air Force

H. Recommendations applicable only to the DCAA

I. Recommendations regarding EDP auditing
throughout the DOD.

Thus, for example, subcommittee recommendations applicable to the Navy will be found under headings B, C, D, F, and I.

A. RECOMMENDATIONS APPLICABLE TO THE OSD AND THE DSA

The recommendations of the OSD Subcommittee on the organization of OSD internal audit groups and the Auditor General, DSA, on training, on the Cost Reduction Program, and on the formation of a civilian internal audit advisory committee to the OSD are not repeated here, since they appear under the recommendations of the full AICPA Advisory Committee. Other recommendations of the OSD Subcommittee follow.

Need for specialized skills

- (1) Specialists in EDP and other areas should be employed at the OSD level to work with the internal audit staff.

Effective management auditing requires familiarity with many functional areas. The effectiveness and efficiency of management audits can be improved by the use of specialists in such areas as EDP, procurement, supply management, and equipment management to work with internal audit personnel in developing audit approaches and techniques for the diverse operational audit areas subject to audit.

Audit coverage

- (2) The emphasis of the auditing effort should be directed more toward evaluation of the underlying operating systems and conditions than toward the identification and re-identification of operating errors and deficiencies, thereby improving the relationship between internal auditing effort and management follow-up.

A large number of OSD and DSA internal audit reports indicate errors or deficiencies which, while properly channeled through the various command levels, frequently result in no change in the underlying operating systems. As a consequence, the internal auditors note in subsequent audits similar operating errors and deficiencies.

- (3) The proposed new Office of Defense Internal Audit should develop improved methods for budgeting and controlling the time utilized on internal audits.

In a number of OSD and DSA internal audits, the actual time expended exceeded the original time estimate by as much as 50% to 100%. We believe the audit staff should be required to prepare more detailed and realistic time estimates, and should be held accountable for variances therefrom.

- (4) OSD and DSA management personnel should participate in the determination of planned audit coverage.

Active management participation and assistance should improve audit coverage and expedite the completion of audits.

B. RECOMMENDATIONS APPLICABLE TO ALL THREE MILITARY DEPARTMENTS

Organization

- (5) The head of each of the internal audit groups should report directly to the Secretary of his respective department or other appropriate level.

For many years internal auditing in the DOD was limited largely to financial and accounting areas, and therefore it was appropriate that the internal audit organizations report to the comptrollers. Now that the primary emphasis of internal audit has shifted to operational and other management areas, it would be more appropriate for these internal audit organizations to report to a higher level of management than the comptroller. This would provide for more direct reporting to the highest level on critical matters and should improve the implementation of important audit recommendations.

- (6) The head of each of the audit groups should be a civilian, preferably a GS-18, who should have considerable expertise in audit management.

This would provide a longer period of tenure for the head of the audit group, assuring greater continuity of audit policy and direction than is likely to be attained under the present arrangement of having the group headed by a military officer who usually has had little or no professional experience in internal auditing.

- (7) The internal auditors of each of the audit groups should be primarily civilian rather than military personnel.

This change would provide more attractive career opportunities for professional auditors and would improve the likelihood of attracting and retaining highly competent people. In addition, a military officer is placed in a difficult position when he is asked to evaluate and report on an activity under the command of a higher-ranking officer.

In some cases, we recognize that it may be useful and desirable to assign a limited number of military officers at headquarters and other levels to act in a military liaison capacity during a transitional period. We also recognize that it might be useful to have some qualified junior officers assigned to these audit groups as part of their general training and development.

- (8) A continuing review should be made of potential audit gaps in procurement activities among the DCAA, the Auditor General, DSA, and the internal audit groups of the military departments, and audit programs should be reviewed to assure complete audit coverage.

Because of the way in which the procurement function is organized and administered and the way in which the audit responsibilities are assigned, three different audit groups may be required to audit or review the procurement process relating to a single contract. (These reviews should be a responsibility of the enlarged audit group at the OSD level - see Recommendation No. 3(c) in the section "Recommendations of the Advisory Committee.")

Personnel and training

- (9) Training courses should include instruction and test cases in specific techniques of workpaper preparation.

Our review of selected workpapers indicated that additional training time should be devoted to workpaper preparation and audit techniques. It is our experience that, despite an extensive educational background, new auditors require considerable training in this area.

- (10) Each internal audit group should employ experienced EDP specialists.

The increased use of computers makes it essential that highly skilled, experienced EDP personnel assist and train the present internal auditors in evaluating the audit trails and controls of, and in developing audit guides for, major computer systems.

- (11) Each internal audit group should employ specialists experienced in areas other than auditing and EDP.

Management or operational auditing requires the auditor to work in many functional areas for which his training has not provided specialized knowledge. Audit effectiveness and efficiency can be improved by the use of specialists in such areas as inventory control, industrial engineering, procurement, and maintenance to work with internal audit personnel in developing audit approaches and techniques for the diverse operational areas subject to audit.

- (12) Each internal audit group should plan its staff requirements on a long-range basis.

Since trained and experienced auditors are in scarce supply, most audit personnel must be recruited at the college level and given formal and on-the-job training over a period of years. Special consideration, therefore, should be given to long-range staffing requirements in preparing annual budgets or in making budgetary cuts for these groups.

Audit coverage and frequency

- (13) Each audit group should expand its audit coverage to include the activities of major headquarters staffs at the departmental level.

To date, these headquarters staffs have not been subject to audit.

- (14) Audit tests and investigations should not be extended beyond the point where findings are sufficient to identify significant problems and to support reasonable conclusions as to their causes and seriousness.

The internal auditors of the three military departments feel compelled to go to great lengths to be certain of the frequency of occurrence of a particular type of error or a specific deficiency in a system. We believe there is a possibility for rather substantial reductions in audit time, if the managements of the military departments would be

willing to accept the results of reduced checking and reduced examples of error situations.

Audit programs, procedures, and workpapers

- (15) Specific policies should be established and published regarding the form, content, and review of workpapers.

We noted a lack of uniformity and many deficiencies in the preparation of workpapers, including accumulation of excessive material (much of it copied by hand) without sufficient indication of the audit procedures performed.

- (16) Audit review teams should be established periodically to review selected audit reports and related workpapers. These teams should report the results of their review, including instances where excessive audit work appears to have been performed.

Most large auditing organizations have found this technique helpful in assuring adherence to high professional standards and compliance with existing audit policies and procedures.

- (17) Standard audit programs or modules should be developed and used for common audit areas. They should be flexible enough to permit modifications in the field prior to the commencement of audit assignments.

While the Navy has many preprinted audit programs, which it uses for the most part as reference material, the Army and the Air Force in many cases prepare individual audit

programs for each audit, even though the function to be audited is common to many locations. The development of such programs is time-consuming and results in duplication on a Service-wide basis.

- (18) Greater emphasis should be placed on the use of statistical sampling to determine sample sizes and selection methods.

Although statistical sampling expertise is generally available within each of the military departments, we found little evidence that this technique was being utilized effectively.

Reports

- (19) After a reasonable interval of time has elapsed following the issuance of a report, one of the auditors involved in the examination upon which the report was based should perform a limited follow-up review to determine that there has been an appropriate response to all significant audit findings.

At present, the internal auditors have no responsibility for determining whether any action has been taken to correct undesirable procedures or conditions, except in the course of subsequent audits, which may occur several years in the future. Some of the military departments do request a written statement of the action taken to improve a particular procedure or condition, but they do not have anyone familiar with the situation evaluate such actions or verify that the particular procedure or condition has actually been revised in a satisfactory manner.

Outside advisors

- (20) For each of the military departments, two knowledgeable civilians from outside the DOD should be appointed, on a voluntary basis, to consult with and advise the Secretaries of the departments and the heads of their respective audit organizations on internal audit policies and practices.

These advisors would also serve as representatives to the OSD advisory committee recommended and discussed earlier in this report. (See Recommendation No. 7 in the section "Recommendations of the Advisory Committee.")

C. RECOMMENDATIONS APPLICABLE ONLY TO THE ARMY AND THE NAVY

Coordination with other audit and investigative agencies

- (21) The Inspector General of each of the military departments should provide the audit group of his department, in writing, with any of his own group's findings relating to operations or financial matters which might be helpful to the internal auditors.

Such coordination would provide a basis for audit leads and follow-up in subsequent audit activities. This type of coordination is now required at the OSD level and has been accomplished in the Air Force.

D. RECOMMENDATIONS APPLICABLE ONLY TO THE NAVY AND THE AIR FORCE

Audit programs, procedures, and workpapers

- (22) Greater emphasis should be placed on the management of man-hours planned and expended for internal audits and on the investigation of variances of actual from planned hours.

Relatively little attention appears to be given to total man-hours expended on particular audits. In some instances, the total number of man-hours expended was more than double the number projected.

- (23) There should be greater involvement of audit supervisors in the planning and conduct of audits, in workpaper review, and in report preparation.

Our reviewers found little evidence that supervisory personnel participate in the planning and conduct of audits or the review of workpapers.

Reports

- (24) All audit reports should be issued promptly upon completion of the field work.

There have been instances of delays of several months between the completion of field work and the date on which the resulting audit report was issued. Much of this delay seems to result from cumbersome report review and

management concurrence procedures. In some cases, more time was spent in report preparation, review, and correspondence than in actual audit work.

E. RECOMMENDATIONS APPLICABLE ONLY TO THE ARMY

Organization

- (25) The use of military officers as Deputy Chiefs (Field) should be eliminated.

The use of military officers for military liaison purposes no longer appears necessary in the Army.

- (26) An Office of District Office Supervision should be established at the Headquarters of the U.S. Army Audit Agency, and the present audit review and evaluation staff should be transferred there-to. The staff should be strengthened to provide greater supervision of the activities of the district offices.

The burden presently imposed upon the civilian Deputy Director, of supervising directly the professional aspects of headquarters and field activities, is beyond the physical capabilities of a single individual.

- (27) The Office of Logistical Audits and the Office of Commands and Staff Audits should be combined and changed from a staff function to a direct audit function.

At present, personnel of these two offices participate in Army-wide and command-wide audits only to a limited extent and are less aware of specific problems in the field than is desirable. Personnel could also be drawn from this combined group for proposed audits of the Department of the Army headquarters.

- (28) The audit follow-up function should be transferred from the Office of the Comptroller of the Army to the U.S. Army Audit Agency.

The Chief of the Audits Compliance Branch has a very small staff which is able to cope only with the administrative aspects of follow-up on audit findings and recommendations. Failure to provide informed follow-up can endanger the effectiveness of the entire audit effort.

F. RECOMMENDATIONS APPLICABLE ONLY TO THE NAVY

Coordination with other audit and investigative agencies

- (29) The Naval Audit Service (NAS) should take immediate measures to strengthen its Coordinated Audits Division.

At present, this division, which is located at the headquarters level, appears to be understaffed.

Audit coverage and frequency

- (30) The frequency of internal audits of major activities or installations should be increased.

Certain major areas of activity are audited on a cycle basis. Audit findings based on these cycles indicate that considerable deficiencies exist in these major activities, and more frequent examinations seem to be warranted.

Reports

- (31) Criteria should be established to limit the number of reports that are required to be cleared through NAS headquarters.

At present, the final drafts of all reports must be cleared through NAS headquarters for final review prior to distribution.

G. RECOMMENDATIONS APPLICABLE ONLY TO THE AIR FORCE

Organization

- (32) The Auditor General and his headquarters should be located in the Washington, D.C. area.

The principal administrative offices of the Air Force are located in the Washington, D.C. area, whereas the headquarters of the Auditor General are located at Norton Air Force Base, California. Under this arrangement, the Secretariat of the Air Force and the Air Staff are deprived of the advantages and benefits inherent in the presence of the Auditor General for purposes of consultation and advice.

- (33) The internal audit field staff should be organized on the basis of large groups which have considerable mobility within designated regional areas.

Members of the internal audit field staff of the Air Force, unlike their counterparts in the Army and the Navy, are stationed at various bases and installations as resident auditors. The principal disadvantage of this policy is the resultant small size of the audit groups (typically, five or six personnel) at each location. Under these circumstances it is difficult to assign personnel with appropriate auditing experience, and on-the-job training suffers from inadequate supervision. Transfers, retirements, and resignations have serious impact on these small groups. A further disadvantage of the small size of these resident

audit groups (AGROs) is that they tend to limit promotional opportunities for civilian employees.

- (34) Supervisors should be stationed at the principal locations of the group (within each region) which they supervise.

At present, supervisors in the geographical regions are stationed either in Rhein-Main, Germany, or at Norton Air Force Base, California. In most cases supervisory responsibility extends over distances of up to several thousand miles. As a result, supervisory personnel spend relatively little time in the field, their principal contact with AGRO personnel is by telephone.

- (35) Internal auditors engaged in internal review activities should be separated from the internal auditing function and should report to local base commanders.

The internal auditors in the Air Force perform not only those functions normally associated with those of the internal audit groups of the Army and the Navy but also those of internal reviewers. Recommendation No. 33, concerning the formation of mobile groups of internal auditors, does not propose to remove the internal review capability from base level.

H. RECOMMENDATIONS APPLICABLE ONLY TO DCAA

Personnel and training

- (36) Consideration should be given to the development of specialists in areas other than advanced audit techniques -- particularly in those areas requiring the evaluation of major pricing proposals.

At present, almost half of all DCAA audits relate to pricing proposals which require specialized skills because they involve estimates of future rather than historical costs.

- (37) The DCAA should step up its supervisory management training program.

It was noted that an age gap exists between many of the top personnel, who soon will be retiring, and the next echelon.

Audit programs, procedures, and workpapers

- (38) Annual or periodic critical reviews of a limited number of reports, audit programs, and workpapers should be made in each region by personnel from another region.

Most large auditing organizations have found this procedure helpful in carrying out their quality control programs.

- (39) The top management personnel of the DCAA should contact contractors and procurement personnel during their field inspection trips to obtain their viewpoints.

At present, only a limited number of such contacts are made.

Reports

- (40) DCAA audit reports should show separately costs questioned for sound and supportable reasons, as distinguished from costs questioned for lack of support. Every effort should be made to state clearly the specific reasons for questioning particular costs.

Under present practice, reports frequently question all of a particular category of costs because of lack of support by the contractor or uncertainty on the part of the field auditor as to the appropriateness of certain elements of costs included in the total category.

Audit relationships within and external to the DOD

- (41) Provision should be made for a formal administrative appeal procedure within the DCAA, which would be made known to contractors, to facilitate earlier settlement of unresolved accounting and auditing matters.

At present, when contractors cannot reach agreement with contracting officers as to acceptable contract terms or changes, the only appeal channels are the Armed Services Board

of Contract Appeals or the Court of Claims. Some of these areas involve accounting or auditing; the contractor may believe that the DCAA's findings on which the contracting officer is relying are unreasonable or in error. The recommended administrative appeal procedure would result in a changed position of the DCAA with respect to the audit findings only if the appeal function concluded that such a changed position was proper. It is not intended that this procedure would change the present authority of contracting officers to make the final decisions.

- (42) Data should be developed by the DOD in the form of industry guidelines for cost elements subject to the reasonableness provisions set forth in Section XV, "Contract Cost Principles and Procedures", of the Armed Services Procurement Regulations.

At present, the provisions of Section XV are difficult to apply. Industry guidelines would assist the field auditors and contracting officers in evaluating and reporting upon the reasonableness of such cost elements.

Defense Contract Audit Advisory Council (DCAAC)

- (43) The Defense Contract Audit Advisory Council should be expanded to include a limited number of high-level, nongovernmental members.

The Council, whose purpose is to advise the Secretary of Defense in the direction and control of the DCAA, presently consists entirely of DOD personnel. The inclusion of individuals from outside the Government would provide independent viewpoints.

I. RECOMMENDATIONS REGARDING EDP AUDITING

Since the existing EDP capability within the various audit groups is extremely limited, the following recommendations deal mainly with the development of an appropriate EDP capability for the future.

Organization

- (44) All EDP audit training activities within the DOD should be under the control and direction of a single organization.
- (45) Personnel who have demonstrated ability in teaching audit techniques for EDP should be transferred to the proposed organization.

Coordination with other audit and investigative agencies

- (46) Formal lines of communication should be established to insure that proven techniques for effectively auditing computer installations are exchanged among all audit organizations within the DOD.

Personnel and training

- (47) Staffing of the various internal auditing groups should be expanded to include personnel experienced in EDP systems design and programming.
- (48) In order to provide adequate career opportunities for qualified EDP personnel within the internal audit groups, appropriate salary levels for such specialists must be provided.
- (49) Training courses should be developed for varying levels of competence in EDP, including a period of hands-on experience for all audit personnel.
- (50) A special study group should be established within the DOD to develop EDP auditing techniques, including methods for utilizing computers in the audit process, and to provide guidance and counsel thereon to all audit groups in the DOD.

Audit programs, procedures, and workpapers

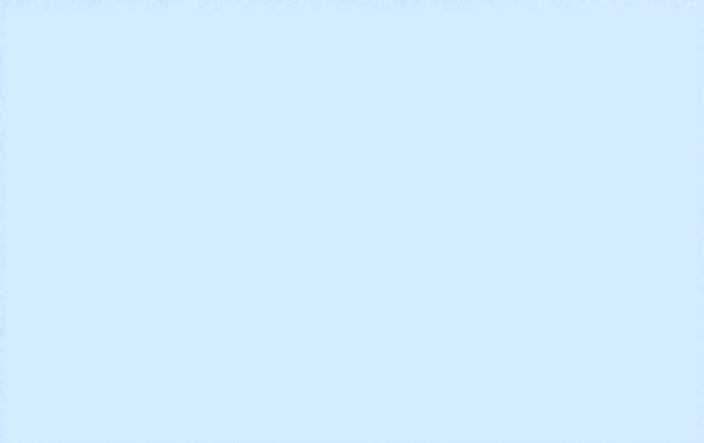
- (51) Detailed checklists should be developed for use by field audit personnel in reviewing audit trails and controls surrounding EDP applications.
- (52) A team concept should be developed for audits of major computer installations combining EDP audit specialists with highly skilled computer programming and systems specialists.
- (53) The Secretary of Defense should require that the implementation of any major new computer-based management information system be approved by the cognizant audit group as to the adequacy of operating controls and audit trails before the system can be implemented. This should be done at an early stage in the system design.

Audit coverage and frequency

- (54) Steps should be taken within the DOD to broaden the use of generalized and specialized computer-based internal audit programs.

Civilian advisors

- (55) Two knowledgeable civilians from outside the DOD should be appointed, on a voluntary basis, to consult with and advise the DOD on EDP audit policies and practices.



PART II

REPORTS OF:

OSD SUBCOMMITTEE

U.S. ARMY SUBCOMMITTEE

U.S. NAVY SUBCOMMITTEE

U.S. AIR FORCE SUBCOMMITTEE

DCAA SUBCOMMITTEE

EDP AUDITING SUBCOMMITTEE

REPORT OF THE
OFFICE OF THE SECRETARY OF DEFENSE (OSD)
SUBCOMMITTEE

AICPA ADVISORY COMMITTEE
TO
BLUE RIBBON DEFENSE PANEL

MAY 1970

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INTERNAL AUDIT GROUPS STUDIED

The OSD Subcommittee of the AICPA Advisory Committee was assigned the task of studying three internal audit groups of the DOD - two separate groups at the Office of the Secretary of Defense (OSD) level, and a third group within the Defense Supply Agency (DSA). Before describing the scope of our study, a brief discussion of the organization and the nature of the work of the three internal audit groups studied should be helpful.

OSD-LEVEL GROUPS

The two groups at the OSD level consist of (1) the Office of Director for Audit Policy and (2) the Office of the Deputy Comptroller for Internal Audit (DCIA).

The Assistant Secretary of Defense (Comptroller) has been assigned the responsibility for establishing and supervising the execution of principles, policies, and procedures relating to both contract and internal auditing. He has delegated this responsibility to the Office of the Director for Audit Policy. However, the Director does not report directly to the OASD Comptroller, but to the Deputy Comptroller (Systems, Policy). At April 30, 1970, this office consisted of 15 civilian personnel.

With such a small group, the operating philosophy of this office has been to leave the implementation of policies and practices largely to the three audit groups serving the military departments, to the Deputy Comptroller for Internal

Audit serving the OSD, to the Auditor General, DSA, and to the Director of the Defense Contract Audit Agency, which is responsible for performing all contract auditing for the DOD. Formal directives, instructions, and correspondence have been kept to a minimum and are issued only after the ideas involved have been generally accepted. The objective of this philosophy is to give the various internal audit groups complete flexibility to innovate and experiment, with almost no limitations other than independence and professionalism.

This policy group also prepares digests of the audit reports of all of the internal audit groups for presentation to top levels of the OSD. In addition, it undertakes some research on new audit techniques, including those relating to electronic data processing (EDP) and statistical sampling.

The second audit group at the OSD level, the Office of the Deputy Comptroller for Internal Audit, is responsible for the internal audit functions which are assigned to the Assistant Secretary of Defense (Comptroller). Essentially this audit group is charged with providing:

- quick-response audit capability on matters of special interest to the Secretary of Defense and his staff;
- audit consideration of the inter-service aspects of established DOD policies, programs, and procedures; and

- continuing audit coverage of the Joint Chiefs of Staff and other DOD components (DCA, DIA, DCAA, DASA) under DCIA audit cognizance, and audit coverage of the Military Assistance Program.

The office is headed by a Deputy Comptroller, who reports directly to the Assistant Secretary of Defense (Comptroller). At April 30, 1970 the office had 103 persons, of whom two were military. The DCIA is basically a mobile audit group working out of Washington, D. C. with a few resident auditors located throughout the United States and overseas. During 1969, 51% of its effort was devoted to special DOD-wide audits and reviews, 19% to audits of DOD components, and 30% to audits of the Military Assistance Program. Some recent examples of DCIA audits are as follows:

- Audit of reproduction equipment and services within the Defense Communications Agency.
- Audit of petroleum management in the European theater.
- Review of U.S. Army Aviation Systems Command's evaluation of a helicopter company's make-or-buy proposals.
- Review of selected aspects of contract maintenance procedures.

AUDITOR GENERAL, DEFENSE SUPPLY AGENCY (DSA)

The third audit group which our subcommittee studied was the Office of the Auditor General, Defense Supply Agency

(DSA). The office is headed by an Auditor General who reports to the Comptroller, DSA, and has a concurrent channel of communication to the Director, DSA. However, we were informed that this channel of communication has rarely, if ever, been used. At April 30, 1970 this group consisted of 129 persons, all of whom were civilians. The Auditor General, DSA, is located in Washington, D. C. but has resident auditors located at major DSA depots, support centers, and other locations throughout the United States.

The DSA's main mission is to provide effective and economical support to the military departments, other DOD components, Federal civil agencies, and foreign governments for authorized material commodities, for items of supply, and for logistical services directly associated with the supply management function. The Auditor General, DSA, has been assigned the responsibility of performing the internal audit function, both financial and managerial, for the entire DSA mission. During 1969, 46% of its effort was devoted to supply management, 24% to procurement and contract administration, 18% to personnel and comptroller services, and 12% to support and other services. Some recent examples of Auditor General, DSA, audits are as follows:

- Audit of the management of industrial plant equipment within the Department of Defense relative to the inventory mission of the Defense Industrial Plant Equipment Center.
- Audit of Defense Depot Ogden - Ogden, Utah.

- Comprehensive audit of the Defense Personnel Support Center, Director of Medical Material.

SUMMARY

TASK DESCRIPTION

The Office of the Secretary of Defense (OSD) Subcommittee was organized in November 1969 to study, report on, and make recommendations concerning the operations and functions of the Office of the Director for Audit Policy, the Office of the Deputy Comptroller for Internal Audit (DCIA), and the Office of the Auditor General, Defense Supply Agency (DSA).

The scope of the study was aimed at, but not limited to:

- (1) Relationships of these internal audit groups to their commands and to other internal audit groups, both within and outside the Department of Defense (DOD).
- (2) Organizational structures of the commands in relation to the internal audit groups.
- (3) Nature, extent, and adequacy of the scope of audits and audit techniques.
- (4) Audit personnel qualifications, training, and experience.
- (5) Quality, timeliness, and usefulness of reports and recommendations.

SCOPE OF REVIEW

During our study we (1) interviewed the top officials

of each of the internal audit groups involved, "clients" of each group, and other top officials within the appropriate offices of the Assistant Secretaries of Defense and within the General Accounting Office (GAO) (see Exhibit 1); (2) reviewed a representative number of audit reports as well as a number of the detailed audit workpapers (see Exhibits 2, 3 and 4); and (3) visited an audit location and interviewed internal auditors in the field and in Washington, D. C.

Our review and evaluation have been broad in scope. We believe, however, that our detailed findings are sufficient to reasonably support our recommendations.

We received complete cooperation from all of the GAO, OSD, and DSA personnel interviewed, and would like to express our appreciation for the courtesies extended to our representatives.

GENERAL EVALUATION

Our subcommittee has concluded that the internal audit groups reviewed are carrying out their respective assigned missions on a reasonably satisfactory basis. However, it was observed that substantial improvement could be made in the contribution made by internal audit groups to the effectiveness of DOD management. The major opportunities for improvement are dealt with later in this report.

RECOMMENDATIONS

The following is a summary of the recommendations of

our subcommittee. The recommendations relating to the re-organization of the three internal audit groups which we studied have been developed in consultation with the full AICPA Advisory Committee. We have also had the advice and concurrence of the Advisory Committee with respect to our recommendations relating to training, to the Cost Reduction Program, and to the formation of a civilian advisory committee.

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Organization

These recommendations are made primarily to provide the Secretary of Defense with a much stronger capability for monitoring the management of the individual military departments and other Defense agencies, and to upgrade the status and independence of the Internal audit groups.

- (1) An enlarged and strengthened internal audit organization should be established at the OSD level, headed by a highly qualified civilian audit administrator who should report directly to the Deputy Secretary of Defense. 17
- (2) This new office, which might be called the Office of Defense Internal Audit, should include the present staffs and functions of the Offices of the Director for Audit Policy, the Deputy Comptroller for Internal Audit, and the Auditor General, DSA. 17
- (3) The responsibilities of the new Office of Defense Internal Audit should be expanded beyond those of the three audit groups to be combined. 17

The office should make more extensive reviews of the internal audit groups and of inter-

service activities and unified commands, and should provide much stronger coordination, monitoring, and follow-up of internal audits within the DOD of such functional areas as research and engineering, procurement, supply management, personnel, and financial management.

17

- (4) The audit staff of the new Office of Defense Internal Audit should be augmented by a minimum of 100 qualified professionals, by hiring or by transferring personnel from the internal audit organizations of the military departments. We believe that this manpower can be made available without replacements in the military departments if our recommendations as to reductions in audit time and coverage are implemented.

18

Training

This recommendation is made to improve the education and training of the internal auditors on a DOD-wide basis and to upgrade the skills and audit techniques within the various DOD internal audit organizations.

- (5) All formal internal audit education and training programs and courses within DOD should be centralized and placed under the direction and control of the new Office of Defense Internal Audit.

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Need for specialized skills

This recommendation is made to improve the effectiveness of management auditing, particularly in view of the extent to which computers are now used in the DOD.

- (6) Specialists in EDP and areas other than auditing should be employed and integrated

into the internal audit team to work with the internal auditors in developing improved audit approaches and techniques.

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Audit coverage

These recommendations are made to reduce audit time and effort, and to improve the relationship between internal auditing effort and management follow-up.

- (7) Auditing effort should be directed more toward evaluation and improvement of the underlying operating systems and conditions than toward the identification and re-identification of operating errors and deficiencies. 25
- (8) Improved methods should be developed and used for budgeting and controlling the time expended on internal audits. 26
- (9) Formal procedures should be established whereby OSD and DSA management personnel participate in the determination of planned audit coverage. 27

Cost Reduction Program

This recommendation is made to reduce significantly the amount of audit time presently required to test-check the program.

- (10) To enable the determination of savings under the Cost Reduction Program to be made with much greater reliability, the guidelines should be clarified and improved so that internal audit effort can be reduced. 28

Advisory committee

This recommendation is made to provide outside assistance and guidance for the internal audit groups of the OSD and the DSA.

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- (11) The Secretary of Defense should establish an outside voluntary advisory committee which would provide consultation and advice on internal audit activities.

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AREAS FOR IMPROVEMENT OF THE INTERNAL AUDITING FUNCTION

The OSD Subcommittee finds that there are a number of factors which are preventing the auditing function at the OSD level from reaching the level of efficiency and competence that we believe can be attained. Each of these factors is described briefly below.

UNIFORMITY OF AUDIT POLICY AND PROCEDURE

The Office of the Director for Audit Policy appears to have a limited impact on the other internal audit groups within DOD, due to:

- Its organizational location within the OSD, reporting two levels below the Assistant Secretary of Defense (Comptroller).
- Its inability to carry out its assigned responsibilities in the depth considered necessary by the Subcommittee because of its present limited staff.
- Its operating philosophy of not providing the strong guidance usually considered necessary in decentralized organizations.

AVAILABILITY OF MANPOWER FOR DOD-WIDE AUDITS

Many operations within the DOD currently require inter-service audits. The DCIA is generally responsible for these inter-service audits, but normally it requires the

assistance of the other internal audit groups within the DOD to perform the detailed audit work. Although the DCIA tries to plan and coordinate these inter-service audits with the other internal audit groups, requests for such audits are often received from DCIA on short notice. As a result, the planned audit schedules of the other internal groups, particularly of the military departments, are frequently subject to disruption.

STATUS AND INDEPENDENCE OF INTERNAL AUDIT FUNCTION

The status and independence of the internal audit function at the OSD level should be upgraded. Internal auditing is no longer limited to financial and accounting areas. The head of the OSD internal audit group needs to report to a higher level of management, and one that is more directly concerned with operations.

Independence relates not only to the individuals performing the examination or review, but to the level of organization to which the audit groups report and which subsequently follows up on the deficiencies disclosed. To be effective, the internal audit function must be independent within the organization so that the audit groups will be able to state the facts as they are found and prepare authoritative recommendations.

In an effort to operate effectively at their present reporting level, the internal audit groups have developed time-consuming procedures for clearing findings in order to avoid controversies with the organization audited. If auditors find

conditions which need improvement at one of their client's premises, they know that their comments will be challenged by the organization audited. Therefore they develop a "large case" in order to be sure of the facts; the findings are transmitted to the respective clients and they in turn check them out through their organization before trying to reconcile their differences with the auditor. By the time the original findings and recommendations are finally implemented, much time has elapsed, and sometimes a significant improvement is delayed and compromised to such an extent that it has lost much of its benefit.

AUDIT COVERAGE OF DOD FUNCTIONAL AREAS

There is insufficient coordination and monitoring of audit coverage of the procurement process and other DOD functional areas.

The entire procurement process, particularly in connection with major weapon systems contracts, does not always fall completely within one military department or Defense agency. Frequently one department or agency may award a contract while another department or agency may administer the contract. As a result, three or more different audit groups may audit or review a segment of the procurement process relating to a single contract (e.g., DCAA audits the cost proposed or incurred by the contractor, while the Auditor General, DSA or the internal auditors of the military departments may audit the negotiation or administration of the contract or other steps in the procurement process). No one internal audit group audits the entire procurement process. Because of the way in which the procurement process is organized

and the way in which the audit responsibilities are assigned, audit gaps could develop. Procurement, especially the procurement of major weapon systems, is a highly sensitive area in which there is a great deal of public and Congressional interest.

In addition to procurement, there are other important DOD functional areas, such as research and engineering, supply and equipment management, and financial management, which do not appear to have the high-priority monitoring which the subcommittee feels is needed in view of the significance of these programs. Each of these areas are applicable to all the military departments and Defense agencies; however, they are currently being audited by each of the respective internal audit groups on an independent basis, with relatively little overall coordination. Greater benefit could be obtained from such audit effort if the audits of the DOD-wide functional areas were more closely coordinated and monitored among the various internal audit groups. The efficiency and effectiveness with which the military departments and Defense agencies manage similar areas of operation could be compared and evaluated to identify significant deficiencies or advantages in operating systems which might have DOD-wide implications.

SIZE OF DSA INTERNAL AUDIT GROUP

The internal audit group which serves the Defense Supply Agency is handicapped, because of its limited size, in the areas of recruitment, training and education, provision of career opportunities, and use of specialists. Integration

of this internal audit group with the internal audit groups at OSD level should improve its professional competence without diminishing the capacity of the enlarged group to respond effectively to the audit needs of the Defense Supply Agency. An enlarged audit group should yield greater flexibility in the use of differing levels of skill on individual assignments and should provide for a broader range of expertise than is now available. The inclusion of the Office of the Auditor General, DSA with the OSD internal audit groups reflects a recognition of the fact that DSA has a DOD-wide function and needs significant DOD-wide audit capabilities.

DISCUSSION OF FINDINGS AND RECOMMENDATIONS

ORGANIZATION

In the light of the preceding discussion of opportunities for improving the auditing function at the OSD level, the subcommittee recommends the following organizational changes.

Recommendations:

- (1) An enlarged and strengthened internal audit organization should be established at the OSD level, headed by a highly qualified civilian audit administrator who should report directly to the Deputy Secretary of Defense.
- (2) This new office, which might be called the Office of Defense Internal Audit, should incorporate the present staffs and functions of the Offices of the Director for Audit Policy, the Deputy Comptroller for Internal Audit, and the Auditor General, DSA.
- (3) In addition to the existing responsibilities of the auditing groups being combined, the new Office of Defense Internal Audit should direct its efforts toward:
 - (a) Making more extensive reviews of the manner in which the internal audit function is being carried out by the internal audit groups of the military departments. A greater number of professional personnel would be required at the OSD level to make such reviews. It is expected that these reviews would be helpful in raising the professional quality of the work performed by the internal audit groups of the military departments and reduce the number of audits to a manageable level.

- (b) Conducting more internal audits of inter-service activities and of unified commands with the use of its own personnel to a much greater extent than is presently the case.
- (c) Providing much stronger coordination, monitoring, and follow-up of internal audits within the DOD of such functional areas as research and engineering, procurement, supply management, personnel, and financial management. In carrying out this responsibility, the internal auditors should not be inhibited from making any recommendations which they believe will improve the systems or the operations of the unit being examined - including recommendations for organizational changes and for changes which might be contrary to current DOD regulations or directives or to public laws.

This need is especially evident in the procurement process involving major weapon systems. The present internal audit groups at OSD level do not have the audit capability to monitor the progress and the final results of the contracts for these major weapons systems, including overruns and contract changes. Changes in these contracts can cause revisions in annual appropriation requests, reprogramming, and related financial and legal changes, all of which should be subject to very high-level continuing review.

- (4) The audit staff of the new Office of Defense Internal Audit should be augmented by hiring specialists and by transferring from the present internal audit organizations of the military departments sufficient internal auditors to enable the combined office to accomplish its expanded mission. The OSD Subcommittee believes that there should be

further study to determine the number of personnel who should be transferred to or hired for the new office. The subcommittee's preliminary estimate is that the staff of the new office should be increased by a minimum of 100 qualified professionals to supplement the personnel of the present audit groups which would be combined. We believe that this manpower can be made available without replacements in the military departments if our recommendations as to reductions in audit time and coverage are implemented.

The above recommendations should help the internal audit groups develop and maintain a more independent status in the DOD, so that recommendations would be made on matters with a high level of management significance; would be made with sufficient seasoning and experience to command respect and acceptance by management at all levels; and would be made with a high degree of independence and objectivity.

These recommendations are made for the purposes of:

- Elevating the status of the internal audit function and providing for the required degree of independence and objectivity.
- Providing the level and diversity of skills required to adequately perform the mission.
- Providing the Secretary of Defense with a much stronger capability of monitoring the management of the individual military departments, the DSA, and other Defense agencies.

COORDINATION WITH OTHER AUDIT AND INVESTIGATIVE AGENCIES

General Accounting Office

Discussions with personnel in the Defense Division, General Accounting Office, disclosed no evidence of unwarranted duplication of audit activities between the OSD internal groups and the GAO.

Directorate for Inspection Services (DINS)

The DINS was established in 1965 and, in general, serves in an "Inspector General" capacity for the Office of the Joint Chiefs of Staff, unified/specified commands, and the Defense agencies. At April 30, 1970, 34 people were assigned to the DINS. This group is concerned primarily with military readiness, morale of military personnel, condition of physical facilities, investigative work, and compliance with established policies or regulations. Although some aspects of management auditing are performed by the DINS, such reviews represent only a minor part of its mission and lack the depth of those made by the DCIA. We have concluded that these reviews do not constitute a significant duplication of effort.

Procurement Management Review Program

The DOD Procurement Management Review Program is conducted under the supervision and coordination of the Office of the Assistant Secretary of Defense (Installations and Logistics). The review groups under this program are composed largely of specialists in procurement and are concerned solely with the DOD procurement process. At April 30, 1970, there were 85 people engaged in this program - 8 in the OSD and 77 in the military departments and the DSA. These groups, as part of their review effort, follow the practice of working with the internal auditors who are usually resident in all large military procurement centers. We have concluded that the work of the procurement management review groups does not result in significant duplication of the work done by the internal auditors.

TRAINING

Neither of the two internal audit groups at the OSD level nor the group serving the DSA are large enough to maintain their own formal training schools. They rely on courses provided by the military departments and schools outside the DOD for such training. Both the Auditor General, DSA and the DCIA send their new hires to an introductory course conducted by one of the military departments. This course and other military and Defense agency courses are helpful in giving the

new auditor background information on overall military and Defense activities. Presently existing schools do not emphasize necessary audit objectives and techniques, as do most of the major accounting firms in training their new recruits. On the basis of the subcommittee's review of workpapers prepared by the DCIA and the Auditor General, DSA's internal auditors, there appears to be a definite need for additional training in basic audit objectives, audit techniques, and workpaper preparation. At present, too much internal audit time is spent on details, and too little time in reviewing how a particular functional area is managed and whether management controls are adequate.

While there is some "joint" effort or sharing of joint facilities between the internal audit groups, it is not extensive. Much greater coordination in this area would be desirable.

The proposed new Office of Defense Internal Audit should review the audit techniques and procedures used by all internal audit groups within the DOD and develop courses, including specific training in basic audit objectives and workpaper preparation, which would be used by all of the internal audit groups in training their personnel. In addition, specialized courses should be developed on report writing, EDP systems, EDP auditing, statistical sampling, and other advanced audit techniques.

Recommendation:

All formal audit education and training programs and courses within the DOD should be centralized and placed under the direction and control of the proposed new Office of Defense Internal Audit.

NEED FOR SPECIALIZED SKILLS

At the present time, almost all of the internal auditors in the DOD are hired in the Civil Service Commission's 510 Series for Accountants and Auditors. The subcommittee believes that the internal audit groups at the OSD level should have more personnel who are highly skilled in the use of EDP systems, who can develop EDP programs, and who understand how computers can be utilized in the audit process. The DOD makes extensive use of sophisticated EDP systems to manage and control important supply and financial management activities. However, interviews with many different internal audit groups and reviews of their reports and workpapers indicate that the internal audit groups have not adequately utilized computers in their audit work. In many instances, EDP systems have been designed and installed without any determination by internal auditors as to the adequacy of system controls, machine and program controls, or audit trails. One of the reasons for this lack of involvement is that the internal audit groups do not have a sufficient number of personnel trained in EDP auditing. We have been informed that there is difficulty in securing a high enough compensation level to

attract capable, experienced EDP specialists since, in government, the higher salary levels are related to management and supervisory responsibilities rather than to technical capabilities.

Effective management auditing requires familiarity with other specialized areas. At present, many internal auditors do not have sufficient training in such important areas. Our review of internal audit reports, inquiries made of "clients" of internal audit groups, and our own observations indicate that the employment of specialists in a variety of areas would be desirable. There is a clear need for personnel who have had management information and control experience, and for others with expertise in such areas as supply management, equipment management, and procurement. It has been our experience that the added cost of these skills will more than repay itself by reducing the time-consuming effort now required of less specialized personnel and by improving the output of the internal audit staff.

Recommendation:

Specialists in EDP and areas other than auditing, such as research and engineering, procurement, supply management, industrial engineering, and maintenance, should be employed and coordinated into the internal audit team to work with the internal auditors in developing improved audit approaches and techniques.

AUDIT COVERAGE

Many of those who receive internal audit reports have indicated to us that they get so many of these and other similar management reports to review that they do not have the administrative time or capabilities to follow through and correct the underlying conditions before subsequent audits of the same activity or area have been completed. This would indicate that there could be "too much auditing" and "too much reviewing" on the part of the OSD, the military departments, and other Defense agencies at the present time in relation to the management manpower available to follow through on the findings and recommendations.

Also, based on our reading of a large number of internal audit reports, it appears to us that many of the difficulties with respect to supply and material inventory, Government-owned equipment, and procurement systems derive from either an inadequate system or poor implementation. The result is a large number of reports of errors or deficiencies which, while properly channeled up through the various command levels, frequently result in no change in the underlying operating systems. As a consequence, the auditors note in subsequent audits that no basic improvement is shown.

Recommendation:

The emphasis of the auditing effort should be directed more toward evaluation and improvement of the underlying operating systems and conditions than toward the identification and re-identification of operating errors and deficiencies, thereby improving the relationship between internal auditing effort and management follow-up.

A significant difference between internal audits in the DOD and internal audits in private industry lies in the importance attached to the cost/benefit relationship of such audits. In industry, particularly in connection with operational or management-type audits, there is a definite impetus to limit audit time by comparing the cost of the audit with the value of the anticipated results.

In some DCIA and DSA internal audits, the amount of time actually expended in certain areas seems to have been excessive in relation to the anticipated results. In a number of internal audits reviewed by us, the actual time expended exceeded the original time estimate by as much as 50% to 100%. Some of this additional time was the result of inadequate budgets, because of insufficient knowledge of the conditions that were to be encountered, but much of it seems to have resulted from insufficient concern for economizing on audit time and using the best audit techniques to perform the work.

Recommendation:

The proposed new Office of Defense Internal Audit should take a hard look at current audit practices and develop improved methods for budgeting and controlling the time utilized on internal audits. The audit staff should be required to prepare more detailed and more realistic time estimates, and should be held accountable for variances therefrom.

In accordance with GAO guidance, the DCIA and DSA internal audit groups have developed a challenging "management audit" concept which can be of substantial benefit to DOD

management. This concept envisions an audit of important management problems, with recommendations for cost reductions and improvements in operating effectiveness. While the current program has been effective in comparison with previous efforts, it falls short of its potential benefit because:

- (a) There are no formal procedures whereby the top officials in the various OSD and DSA functional areas participate in the determination of audit coverage or priorities.
- (b) The time interval between the start and the completion of a management audit is much too long.
- (c) OSD and DSA personnel within the operational area being audited are rarely added to the audit team to assist in familiarizing the internal auditors with local operating policies and procedures.

Management participation and assistance could avoid some of the extra effort now expended by internal auditors to support their position, and the findings and recommendations could be determined and agreed to more readily.

Recommendation:

Formal procedures should be established whereby OSD and DSA management personnel participate in the determination of planned audit coverage.

COST REDUCTION PROGRAM

At the present time the DOD has a formal Cost Reduction Program designed to encourage all personnel in the Department to be aware of opportunities for cost savings and to highlight and emphasize this in all DOD activities. Certainly this goal is sound, and this is a worthwhile management function.

However, as the program is now set up, in order for formal reports to be issued validation by internal audit groups is required. On a DOD-wide basis, approximately 118 man-years were spent in fiscal 1969 in validating submissions under this program. Virtually all of the officials we interviewed, both in the internal audit area and in the OSD management area, questioned the need for the extensive internal auditing effort that is now required to validate these submissions.

The guidelines under the present Cost Reduction Program are quite complex and readily subject to misinterpretation. As a result of the complexity of the guidelines, a substantial percentage of the submissions under the program are rejected by audit. If the guidelines were clarified, and with proper administration, we can see no reason to require that the internal audit groups validate all submissions under the program.

Recommendation:

To enable the determination of savings under the Cost Reduction Program to be made with much greater reliability, the guidelines should be clarified and improved so that internal audit effort can be reduced and limited to the same level of auditing normally applied in other important management areas.

EDP AUDITING

Comments are included elsewhere in this report (see section headed "Need for Specialized Skills") on EDP auditing and the use of EDP equipment for auditing purposes.

A separate report on computer auditing within the DOD is being prepared by the EDP Auditing Subcommittee.

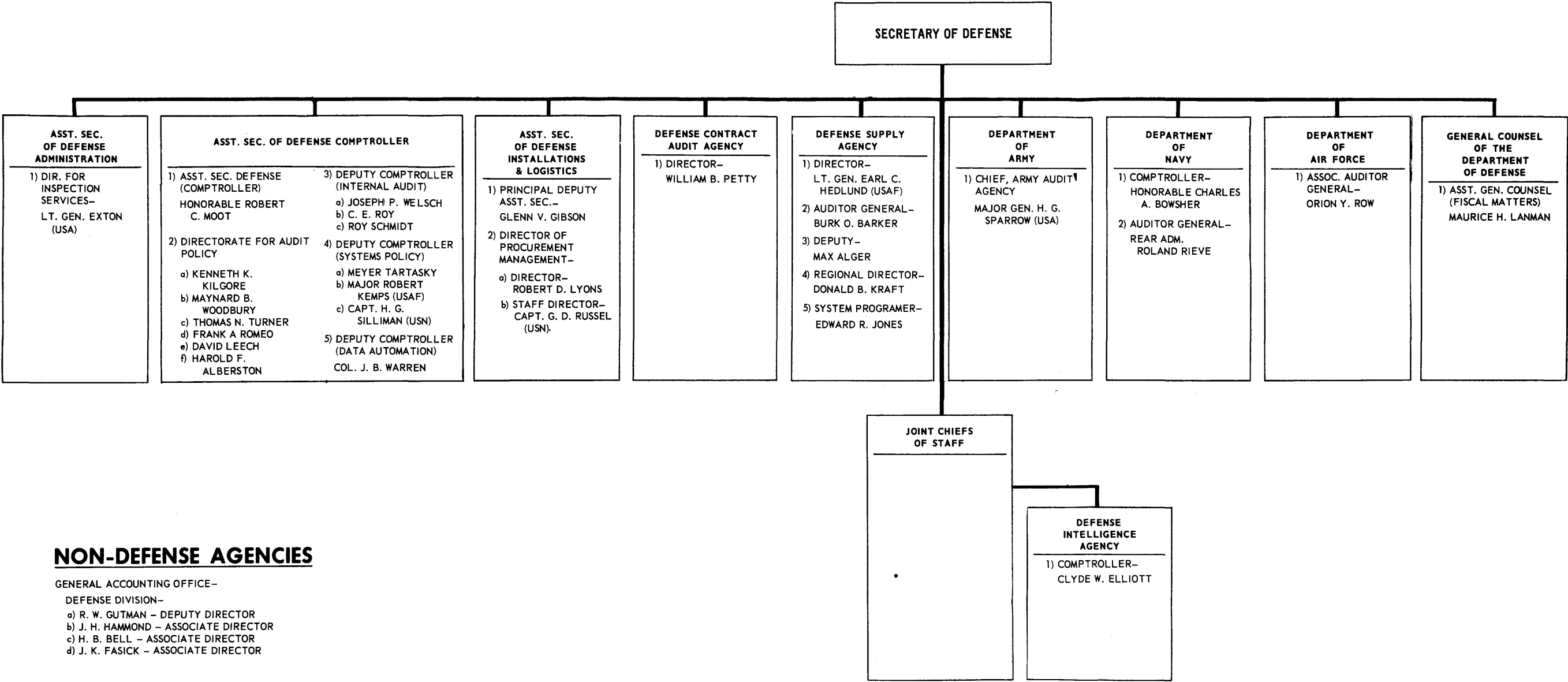
Advisory Committee

At the present time neither the Office of the Director for Audit Policy, the Office of the Deputy Comptroller for Internal Audit, nor the Office of the Auditor General, DSA has a strong outside advisory committee to review its activities, make recommendations for changes in its procedures, and provide assistance or guidance, as requested, on professional problems encountered in carrying out its internal audit mission or maintaining its professional competence.

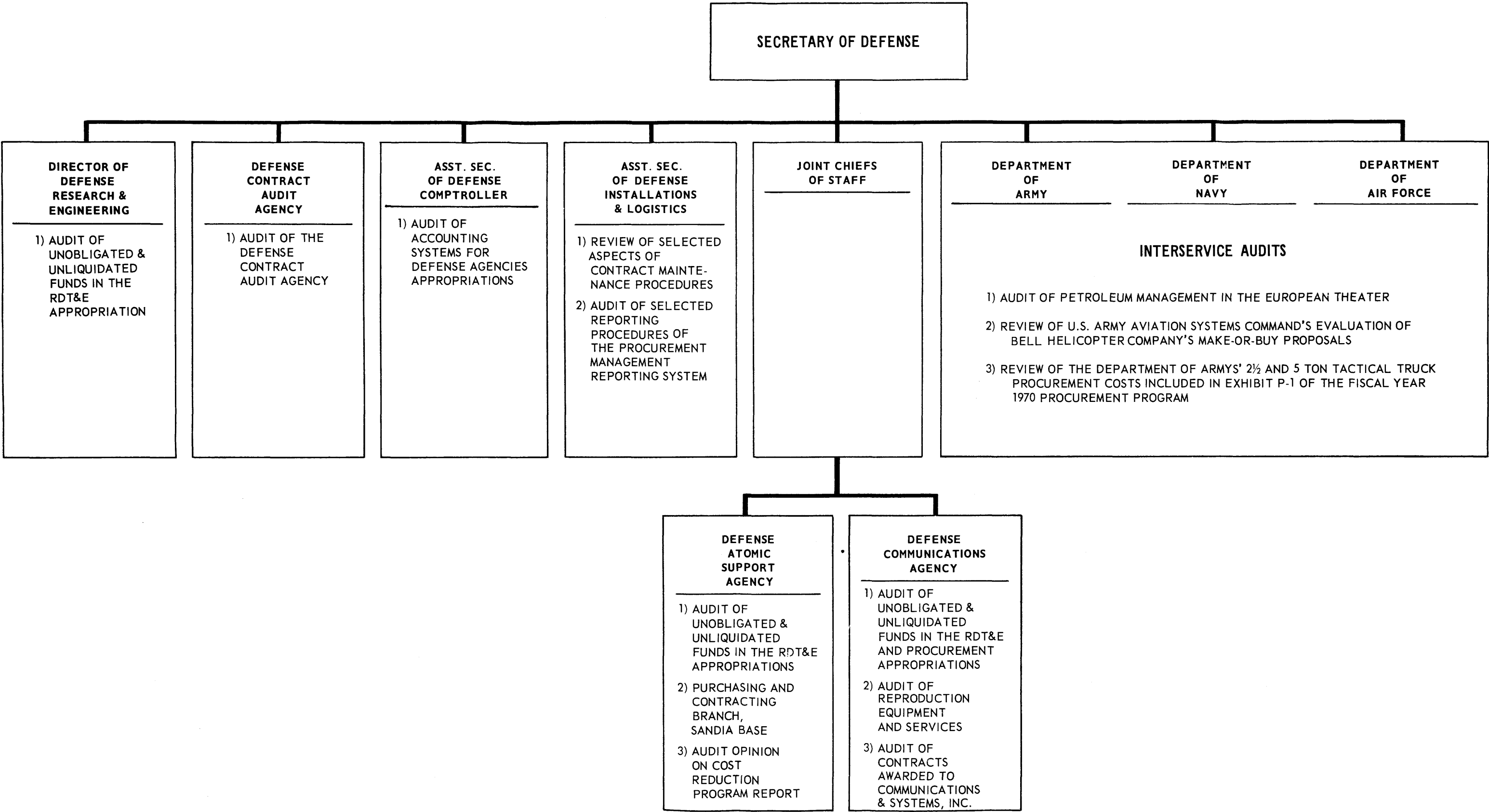
Recommendation:

The Secretary of Defense should establish an outside voluntary advisory committee, which could be coordinated with the proposed Office of Defense Internal Audit, to provide for consultation and advice on the internal audit activities of the OSD and the DSA and to make recommendations for changes in their procedures. This committee should consist of some members with experience similar to that of members of the present AICPA Advisory Committee and others in industry and with management consulting firms, industrial engineering firms, and similar organizations.

ORGANIZATIONAL CHART OF BRIEFINGS AND OFFICIALS INTERVIEWED BY OSD SUBCOMMITTEE



DCIA AUDIT REPORTS REVIEWED BY OSD SUBCOMMITTEE AS THEY APPLY TO THE DOD ORGANIZATION



INTERNAL AUDIT REPORTS

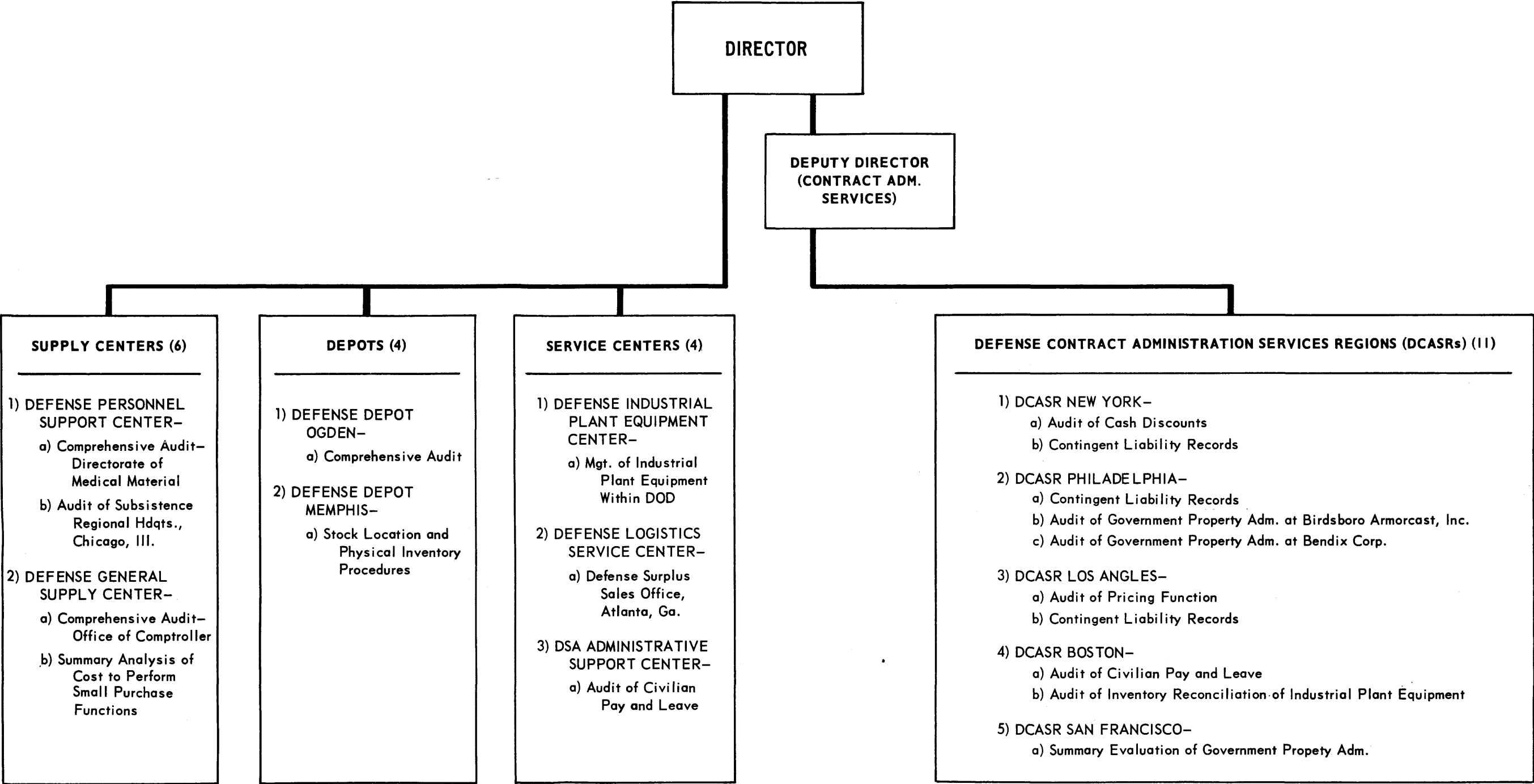
REVIEWED BY OSD SUBCOMMITTEE

OFFICE OF DEPUTY COMPTROLLER FOR INTERNAL AUDIT

1. Report on the Audit of the Accounting System for the Defense Agencies Appropriations - October 29, 1968
2. Report of the Audit of Unobligated and Unliquidated Funds for the Program Year 1966 and Prior in the RDT & E Appropriations - Defense Atomic Support Agency - August 29, 1969
3. Report on the Audit of Unobligated and Unliquidated Funds for Program Year 1966 and Prior in the RDT & E and Procurement Appropriations - Defense Communication Agency - August 22, 1969
4. Report on the Audit of Unobligated and Unliquidated Funds for Program Year 1966 and Prior in the RDT & E Appropriations - The Advanced Research Projects Agency (DDR & E) - August 26, 1969
5. Report on the Audit of Reproduction Equipment and Services Within the Defense Communications Agency - December 20, 1968
6. Purchasing and Contracting Branch, Base Services Division, Sandia Base, New Mexico - November 24, 1969
7. Report on the Audit of the Defense Contract Audit Agency - October 31, 1969
8. Report on the Audit of Petroleum Management in the European Theater - August 21, 1969
9. Report on the Review of the U.S. Army Aviation Systems Command's Evaluation of Bell Helicopter Companies Make-or-Buy Proposals - October 3rd, 1969
10. Report on the Audit of Contracts Awarded to Communications & Systems, Inc., by the Defense Communications Agency - July 24, 1969
11. Review of Selected Aspects of Contract Maintenance Procedures - January 30, 1970

12. Report of the Audit of Selected Reporting Procedures of the Procurement Management Reporting System - April 9, 1969
13. Audit Opinion on the Defense Atomic Supply Agency Cost Reduction Program Report for the Fiscal Year 1969 - August 26, 1969
14. Review of the Department of Army's 2-1/2 and 5 Ton Tactical Truck Procurement Costs Included in Exhibit P-1 of the Fiscal Year 1970 Procurement Program - September 5, 1969

DSA AUDIT REPORTS REVIEWED BY OSD SUBCOMMITTEE AS THEY APPLY TO THE DSA ORGANIZATION



NOTE:
AUDITS APPLICABLE TO DEPOTS AND CENTERS–
1) Summary analysis of DSA physical inventory procedures and practices.
2) Audit analysis of DSA material returns program.

NOTE:
AUDIT APPLICABLE TO ALL DCASRs
– Summary Evaluation of Government Property Adm.

INTERNAL AUDIT REPORTS

REVIEWED BY OSD SUBCOMMITTEE

OFFICE OF THE AUDITOR GENERAL, DEFENSE SUPPLY AGENCY

1. Audit of Cash Discounts - Defense Contract Administration Service Region - New York - 1 July 1966 - 31 December 1966
2. Audit of Civilian Pay and Leave - Defense Contract Administration Services Region - Boston - 22 May 1969
3. Summary Evaluation of Government Property Administration - Defense Contract Administrative Services - 12 March 1969
4. Audit of the Management of Industrial Plant Equipment Within the Department of Defense Relative to the Inventory Mission of the Defense Industrial Plant Equipment Center - 7 April 1969
5. Audit of Government Property Administration - Defense Contract Administration Services Region - San Francisco at Stanford Research Institute - Menlo Park, California - 31 January 1969
6. Audit of Defense Depot Ogden - Ogden, Utah - 29 August 1969
7. Audit of Government Property Administration DCASR, Philadelphia - At Communications Division of Bendix Corporation - Towson, Maryland - 10 June 1968
8. Comprehensive Audit Defense Personnel Support Center - Directorate of Medical Material - Third Interim Report - 27 October 1969
9. Summary Analysis of the DSA Physical Inventory Procedure and Practices - 3 October 1969
10. Comprehensive Audit - Defense General Supply Center - Office of the Comptroller - 19 September 1969
11. Audit of Stock Locations Audit and Physical inventory Procedures and Practices at the Defense Depot Memphis - Memphis, Tennessee - 6 October 1969
12. Contingent Liability Records - Defense Contract Administration Services Region - Philadelphia, Pennsylvania - 30 August 1967
13. Contingent Liability Records - Defense Contract Administration Services Region - New York, New York - 1 April 1966 - 31 March 1967

14. Audit of the Pricing Function - Defense Contract Administration Services Region - Los Angeles, California - 1 April 1966 - 31 March 1967
15. Contingent Liability Records - Defense Contract Administration Services Region - Los Angeles, California - 1 April 1966 - 31 March 1967
16. Audit of Government Property Administration DCASR, Philadelphia at Budsboro Armormcost, Inc., Budsboro, Pennsylvania - 18 December 1967
17. An Audit of the Defense Supply Agency Material Returns Program - 16 April 1965
18. Audit of Subsistence Regional Headquarters, Chicago, Illinois, Defense Personnel Support Center - 23 January 1969
19. Defense Surplus Sales Office - Atlanta, Georgia - 1 April 1963 - 30 June 1966
20. Audit of Civilian Pay and Leave, Defense Supply Agency, Administrative Support Center - 3 July 1966 - 4 October 1969
21. Summary Analysis of the Cost to Perform the Small Purchase Function, Defense General Supply Center, Richmond, Virginia - 3 May 1969
22. Audit of the Inventory Reconciliation of Industrial Plant Equipment Performed by the Defense Contract Administration Services Region, Boston, Massachusetts - 13 December 1968

INTERNAL AUDIT WORKPAPERS
REVIEWED BY OSD SUBCOMMITTEE

OFFICE OF DEPUTY COMPTROLLER FOR INTERNAL AUDIT

1. Report on the Review of the U.S. Army Aviation Systems Command's Evaluation of Bell Helicopter Company's Make-or-Buy Proposals - October 3, 1969
2. Report on the Audit of Contracts Awarded to Communications & Systems, Inc., by the Defense Communications Agency - July 24, 1968
3. Review of Selected Aspects of Contract Maintenance Procedures - January 30, 1970
4. Report of the Audit of Selected Reporting Procedures of the Procurement Management Reporting System - April 9, 1969
5. Report on the Audit of Unobligated and Unliquidated Funds for the Program Year 1966 and Prior in the RDT & E and Procurement Appropriations - Defense Communications Agency - August 22, 1969
6. Audit Opinion on the Defense Atomic Supply Agency Cost Reduction Program Report for the Fiscal Year 1969 - August 26, 1969
7. Review of the Department of Army's 2-1/2 and 5 Ton Tactical Truck Procurement Costs Included in Exhibit P-1 of the Fiscal Year 1970 Procurement Program - September 5, 1969

OFFICE OF THE AUDITOR GENERAL, DEFENSE SUPPLY AGENCY

1. Audit of Subsistence Regional Headquarters - Chicago, Illinois - Defense Personnel Support Center - 23 January 1969
2. Defense Surplus Sales Office - Atlanta, Georgia - 1 April 1963 - 30 June 1966
3. Audit of the Management of Industrial Plant Equipment Within the Department of Defense Relative to the Inventory Mission of the Defense Industrial Plant Equipment Center - 7 April 1969

4. Audit of Civilian Pay and Leave, Defense Supply Agency, Administrative Support Center - 3 July 1966 - 4 October 1969
5. Summary Analysis of the Cost to Perform the Small Purchase Function, Defense General Supply Center - Richmond, Virginia - 7 May 1969
6. Audit of the Inventory Reconciliation of Industrial Plant Equipment Performed by the Defense Contract Administration Services Region - Boston, Massachusetts - 13 December 1968

SUMMARY LISTING OF LITERATURE AND REPORTS

REVIEWED BY THE OSD SUBCOMMITTEE

GENERAL ACCOUNTING OFFICE REPORTS TO CONGRESS

1. Internal Audit Activities in the Department of Defense, March 8, 1969
2. Survey of Reviews by the Defense Contract Audit Agency of Contractors' Price Proposals Subject to Public Law 87-643, February, 1967
3. Need for Better Coordination Among, and Guidance of, Management Evaluation Groups in the Department of Defense, January 2, 1970

DEPARTMENT OF DEFENSE DIRECTIVES

1. Number 5105.36-
Defense Contract Audit Agency
2. Number 5118.3-
Assistant Secretary of Defense (Comptroller)

DEPARTMENT OF DEFENSE INSTRUCTIONS

1. Number 7600.1-
Summary Reports of Audit Operations
2. Number 7600.2-
Department of Defense Audit Policies
3. Number 7600.3-
Internal Audit in the Department of Defense
4. Number 7600.4-
Auditing the DOD Cost Reduction Program
5. Number 7600.5-
Internal Audit Staff Development Programs;
Qualifications and Supervisory Structure

OFFICE OF THE DEPUTY COMPTROLLER FOR INTERNAL AUDIT

1. Instructions
2. Technical Bulletins

OFFICE OF THE AUDITOR GENERAL, DEFENSE SUPPLY AGENCY

1. Standard Operating Procedures
2. Defense Supply Agency Regulation No. 7600.4

ARMY

REPORT OF THE
U.S. ARMY SUBCOMMITTEE

AICPA ADVISORY COMMITTEE
TO
BLUE RIBBON DEFENSE PANEL

MAY 1970

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SUMMARY

TASK DESCRIPTION

A subcommittee of the AICPA Advisory Committee was organized in December 1969 to review and evaluate the organization and operations of the United States Army Audit Agency (USAAA), as part of the study to be made for the Blue Ribbon Defense Panel.

The scope of the subcommittee's study was designed to determine:

- (1) Relationships of the USAAA with commands and with other internal audit agencies, both within and outside the Department of Defense.
- (2) Organizational structure of the USAAA.
- (3) Nature, extent, and adequacy of the scope of audits, and audit techniques.
- (4) Audit personnel qualifications, training, and experience and their utilization.
- (5) Quality, timeliness, and usefulness of reports and recommendations.

SCOPE OF REVIEW

During our study we interviewed officials at higher headquarters levels, top officials of the USAAA, and officials at a number of "client" installations. We also reviewed a representative number of audit reports and visited several District Offices and residencies of the USAAA, where we reviewed a sampling of detailed workpapers and interviewed district

managers, audit directors, and audit supervisors. We also interviewed The Inspector General and officials of the General Accounting Office.

Our review and evaluation of the resources and performance of the USAAA has been broad in scope. Because of the nature of the review, it was not considered necessary to conduct an investigation in the depth which would provide many detailed, specific examples of our findings to "prove" each situation beyond argument. We believe, however, that our findings, interpreted in the light of the long professional experience of the members of the subcommittee, justify the conclusions and recommendations contained in this report.

GENERAL EVALUATION

We rate the management auditing of the USAAA as good to very good. The fact that Army management accepts the great majority of the findings of the USAAA as a basis for action indicates that these findings are significant and worthwhile. The good relations that generally exist between Army management and auditors indicate that personnel of the USAAA have carried out their work in an acceptable manner; this is a fine accomplishment and is to be commended.

The fact that this report contains a number of recommendations for change is not to be interpreted as indicating any feeling on the part of the members of the subcommittee of inadequate performance by the USAAA. Many of the recommendations relate to areas beyond the control of the USAAA. Those recommendations relating to areas within

the scope and responsibility of the USAAA are designed to be helpful in improving the utilization of the available time of USAAA personnel. Overall, we believe that our recommendations can be effective in improving the capability of the USAAA in accomplishing its primary mission of strengthening the Army's system of management controls.

RECOMMENDATIONS

	<u>See</u> <u>page</u>
<u>Organization</u>	
(1) The Chief, USAAA, should report directly to the Secretary of the Army.	6
(2) The position of Chief, USAAA, should be changed from a military to a civilian position, not lower than GS-18, with expertise in auditing.	8
(3) The use of military officers as Deputy Chiefs (Field) should be eliminated.	9
(4) An Office for District Office Supervision should be established at Headquarters, USAAA, and the present staff of Audit Review and Evaluation should be transferred thereto. Staff should be strengthened to provide greater supervision of the District Offices.	10
(5) The Office of Logistical Audits and the Office of Commands and Staff Audits should be combined and changed from a staff function to a direct audit function.	10

Coordination with other audit and investigative agencies

- | | |
|---|----|
| (6) An improved method of coordination should be established to provide more timely notice of potential requests by the Deputy Comptroller for Internal Audit, Office of the Secretary of Defense (Comptroller), for "assist" audits. | 13 |
| (7) A study should be undertaken to review potential gaps in audit coverage of procurement activities, and programs should be | |

devised to assure complete audit coverage. 13

(8) Copies or summaries of findings by The Inspector General relating to operations or financial matters should be provided to the USAAA as a basis for audit leads; schedules should be coordinated. 14

(9) The audit follow-up function should be transferred from the office of the Comptroller of the Army to the USAAA, and audit personnel should be used to review and evaluate actions taken. 16

Personnel and training

(10) Training courses should include instructions and test cases in specific techniques for workpaper preparation and summarization. 22

(11) The USAAA should employ experienced EDP personnel to work with auditors in evaluating audit trails and controls of, and in developing audit guides for, major computer systems. 23

(12) The USAAA should employ specialists experienced in areas other than auditing and EDP to assist in developing audit approaches and techniques for the diverse operational areas now being audited. 24

(13) Staff requirements should be planned several years in advance as basis for formulating continuing recruiting programs. 25

Audit coverage and frequency

(14) Audit coverage should be expanded to include the activities of major headquarters at Department of the Army level. 27

(15) Studies should be undertaken to determine the degree of risk involved in reducing the level of audit tests and investigations to the point where findings are sufficient to identify significant problems and to support reasonable conclusions. 28

- (16) Guidelines and regulations should be clarified and improved to achieve greater reliability of submissions under the Cost Reduction Program, so that auditing effort can be reduced. 30

Audit programs, procedures, and workpapers

- (17) Specific policies should be established and published regarding workpaper preparation, summarization and review. 31
- (18) Detailed standard program modules should be prepared for a number of common areas of audit for use by audit directors and audit supervisors as a starting point for achieving audit objectives. 32
- (19) Each year, audit review teams should be established for a limited period, using audit directors and audit supervisors. Such teams should review selected audit reports and audit workpapers in District Offices other than those represented on the team, and report on the results of the review. 34
- (20) Much greater emphasis should be placed on the practical use of statistical sampling techniques, particularly in establishing reasonable limits for error ranges and confidence levels. 36

Reports

- (21) A schedule should be included as an appendix in each report indicating specific functions and areas reviewed and audited. 36

Civilian advisors

- (22) Two knowledgeable civilians from outside DOD should be appointed to consult with and advise the Secretary of the Army and the Chief, USAAA, on internal auditing and accounting policies and practices. 39

DISCUSSION OF FINDINGS AND RECOMMENDATIONS

ORGANIZATION

The Chief of the USAAA is a general officer who reports to the Comptroller of the Army and who has access, as required, to the Assistant Secretary of the Army (Financial Management). We were informed that this direct access has rarely, if ever, been required, although informal communications may take place fairly frequently between staffs of the two organizations. The Deputy Chief of the USAAA is a career civil service employee who provides required professional expertise and continuity of administration since the Chief is not a professionally trained auditor and is rotated every two or three years.

Staff at the headquarters of USAAA provide general administrative, planning and technical guidance to the seven District Offices. Specific audit direction and participation in audit activities by staff at headquarters level are limited mostly to Army-wide and command-wide audits. Audit reports prepared at the District Offices are reviewed at headquarters prior to release to the specified recipients. A summary chart of organization is attached as Exhibit 3.

District Offices are organized on a geographical basis with, roughly, 100 professional personnel assigned to each of the seven districts. Each district has established a number of area offices (mail drops for all practical purposes) and residencies at major installations to reduce travel requirements and costs.

District Managers are career civil service employees experienced in audit techniques and audit supervision. Deputy Chiefs (Field) located at District Offices are military officers (Colonels) with experience primarily in military functions. District Managers (civilians) report primarily to the Deputy Chief (civilian), while Deputy Chiefs (Field) (military) report directly to the Chief (military). This is a recognition of the separation between the civilian professional activities and the military liaison activities.

In reviewing the audit work, the audit recommendations, and the potential recommendations resulting from audit activities, we were disappointed to find a lack of recommendations in the area of organization. Part of this lack undoubtedly arises from the decisions of higher headquarters as well as the practice of conforming strictly to traditional areas included in audit instructions. We believe that the USAAA must report at a high enough level to assure independence on any subject, including organization, at any level within the Army, including major headquarters at the Department of the Army level.

Recommendation:

Have the Chief, USAAA, report directly to the Secretary of the Army.

This will provide a reporting channel completely removed from any of the staff or operating functions, so that no problem need be avoided or reviewed in limited scope.

During our review, we became aware of the many areas of operations which are now subject to audit. Many of these areas relate to the adequacy of performance of military personnel, with resulting potential pressures for elimination or minimization of audit findings. Such pressures are greatest, of course, for military personnel. We have no evidence that such considerations have influenced the reporting of audit findings in the past but, as part of adequate internal management controls, we believe it desirable to eliminate such areas of potential pressure.

We became concerned, also, with the changes in policy and administrative procedures which can, and do, occur with a change in the position of Chief, USAAA, every two or three years.

Recommendation:

These factors lead us to conclude and recommend that:

- (1) The position of Chief, USAAA, be changed from a military to a civilian position.
- (2) The position of Chief, USAAA, be established at a level no lower than GS-18.
- (3) Qualifications for the position include substantial expertise in auditing.

Such actions, we believe, will have the following benefits:

- (1) Provide a longer period of tenure for the Chief, USAAA, assuring greater continuity of audit policy and direction than is likely under the present arrangement.
- (2) Provide a position of sufficient recognition and prestige

to attract a person of outstanding technical audit qualifications as Chief of the internal audit activities of the Army. A statement of the desirable qualifications for that position is attached as Exhibit 4.

The primary responsibilities of the military officers who have the positions of Deputy Chiefs (Field) of the USAAA are (a) maintenance of communications through military channels from the commanding officers of installations being audited to the Chief, USAAA, and (b) maintenance of adequate relationships between the USAAA and the commanding officers of the installations being audited. Our observations indicated that these Deputy Chiefs (Field) had little part in the audit process except to attend entrance and exit conferences, since they are not trained auditors.

On the basis of our discussions, we have no doubt that military officers in the positions of Chief and Deputy Chiefs (Field) performed a valuable service for the USAAA during its earlier stages. Enough time has now passed, and the civilian employees of the USAAA have performed sufficiently well, that they are now generally accepted without military intervention by the commanding officers of the installations being audited.

Recommendation:

We recommend, therefore, that the use of military officers as Deputy Chiefs (Field) be eliminated. Spaces and funds thus made available could desirably be used to engage additional professional audit personnel.

The burden presently imposed upon the civilian Deputy Director of the USAAA of directly supervising the professional aspects of headquarters and field activities is beyond the physical capabilities of a single individual, even with competent personnel in the top supervisory positions. Further, we observed that the personnel at the headquarters level tend to be less aware of the specific problems encountered by field audit personnel than is desirable if they are to provide adequate guidance and assistance.

Recommendation:

We recommend, therefore, that certain changes be made in the headquarters organization and staffing:

- (1) Establish an Office for District Office Supervision. Transfer to that office the Audit Review and Evaluation activities and staff presently included in the Office of Audit Plans, Programs and Policy. Strengthen the staff sufficiently to enable this Office to perform an adequate evaluation of the activities of the seven District Offices, some 17 area offices and about 18 residencies in widely scattered geographic areas.
- (2) Combine the Office of Director for Logistical Audits and the Office of Commands and Staff Audits and change the function from a staff function to a direct audit function, particularly for the direction of Army-wide and command-wide audits and for the audits of top-level headquarters activities.

These actions, we believe, will have the following advantages:

- (1) Provide more adequate review and supervision of District Office, area office, and residency activities.

- (2) Provide audit directors and supervisors for Army-wide and command-wide audits to relieve the burden now imposed on District Offices when they are designated as the lead audit office for a specific Army-wide or command-wide audit.
- (3) Provide a closer relationship with field audit activities and headquarters, so that guidance programs and directives can be changed relatively quickly on the basis of preliminary findings in the early stages of audits.

COORDINATION WITH OTHER AUDIT AND INVESTIGATIVE AGENCIES

Our reviews in this area covered a number of different agencies:

Outside DOD

The General Accounting Office

Within DOD, other than Army

Deputy Comptroller for Internal Audit, OASD(C)

Defense Contract Audit Agency and Defense
Supply Agency

Within the Army

The Inspector General

AMC Materiel Review Teams

Audit Compliance (COA)

Internal Review personnel at audited installations

The General Accounting Office

Discussions with GAO personnel and USAAA personnel, at both headquarters and field levels, disclosed no evidence

of substantial overlapping or duplication of audit activities. In numerous cases, personnel from both audit agencies might be present at the same installation at the same time - but in different areas of operations. In view of the magnitude of the operations of these major installations and the different objectives of the two audit agencies, we conclude that such concurrent visits with audits in different operational areas were probably unavoidable.

Our discussions with supervisory personnel of both audit agencies disclosed mutual respect for each other's abilities and audit findings. Personnel of each agency looked for evidence of work done by the other agency and then either avoided the same area or used the findings of the other agency as a starting point to determine what was done to correct the deficiencies disclosed. Reports of the USAAA comment on any audit reports by GAO on the installation being audited and on corrective actions taken.

We conclude that an excellent relationship exists between supervisory personnel of the USAAA and the GAO, and that there is little duplication or overlapping of audit effort in the same areas of operations. The GAO, of course, has responsibility for appraising the effectiveness of the work of the USAAA and thus may, on occasion, do some additional audit work in the same functional areas as a basis for that appraisal. Our impression is that such rechecking is not extensive.

Deputy Comptroller for Internal Audit, OASD(C)

Upon request, USAAA will perform "assist" audits for DCIA. Such requests are given a high priority and are carried out as expeditiously as possible. Normally, such requests from DCIA are not received sufficiently far in advance to enable them to be scheduled at the same time as the regular audits of the USAAA are scheduled. Some provision for these request audits is made in the annual schedule, but this is rarely adequate. As a result, scheduled audits are not always accomplished as scheduled.

Recommendation:

We recommend an improved basis for coordination, well in advance, of potential requests by DCIA for "assist" audits to avoid the possibility of conflicts of major magnitude.

Defense Contract Audit Agency and Defense Supply Agency

The limitations on audit areas in the procurement function, we believe, have the potential for leaving gaps in the audit coverage, in actual practice if not in theory. Because of the way in which the procurement function is organized and administered and the way in which audit responsibilities are assigned, three different audit groups may be required to check one contract:

- (1) USAAA for the procurement action through the placing of the contract.
- (2) DCAA for checking of contractors' records.
- (3) Auditor General, DSA, for audit of contract administration.

Such division of audit responsibilities requires great coordination and cooperation to be relatively effective. Such a degree of coordination and cooperation is difficult to achieve even between offices of the same audit group and is much more difficult to achieve between different offices of different groups.

We cannot point at specific instances where the Army has incurred identifiable dollar losses because of this division of duties. Enough evidences of coordination problems with the other audit groups were found, however, to make us feel uneasy about the situation. Amounts of funds expended in the procurement area are so huge that even minor improvements might save millions of dollars.

Recommendation:

We recommend that a study be undertaken to:

- (1) Determine all points at which these potential gaps in audit coverage exist and the potential exposure to loss as a result.
- (2) Devise specific audit steps to cope with these gaps to the extent feasible.
- (3) Establish joint audit programs and channels of communication which would aid in providing fully coordinated audit coverage.
- (4) Publish results to all personnel in the form of specific programs for procurement and logistics audits.

The Inspector General, U.S. Army (TIG)

Discussions and reviews within the USAAA, the Office

of The Inspector General, and certain "client" installations lead us to believe there is little overlap between the activities of TIG and USAAA. TIG concentrates to a large extent on the military, morale and discipline aspects, physical facilities, and the like. These are important matters having a major impact on operations. TIG has an excellent reporting level and seems to be able to get rapid action on his findings.

The matters of greatest concern to TIG are not normally covered in audit activities by the USAAA, and some areas (such as morale and discipline) are never covered by the USAAA.

Recommendation:

We recommend that TIG provide the USAAA with copies or summaries of his findings relating to operations or financial matters as a basis for audit leads and follow-up in subsequent audit activities. Mutually exchange future schedules of USAAA and TIG and coordinate activities in areas of mutual interest, as appropriate.

AMC Materiel Review Teams

Personnel of Army Materiel Command (AMC) installations, where such reviews are carried out, expressed the opinion that these teams were more concerned with the technical and physical aspects of materiel operations, including procurement, than with the financial and compliance aspects involved in the audit activities of the USAAA. Personnel of the USAAA expressed the same conclusion. On the basis of our limited discussions, it appears that there

are no major areas of duplication, even though the functions are similarly described.

Audits Compliance Branch of the
Office of Comptroller of the Army

Recommendations for changes contained in audit reports issued by the USAAA become the responsibility of the Audits Compliance Branch of the Office of the Comptroller of the Army for follow-up to determine action taken. USAAA has no responsibility for actions taken except to recheck the situation at the time of the next audit. On the basis of present audit coverage, this could be four or five years in the future. At that time, conditions may well have changed at the installation, with new personnel involved, so that it may be impracticable to determine whether any action was taken by operating personnel in a timely manner to correct the condition originally disclosed by the USAAA.

The Chief of the Audits Compliance Branch has an extremely limited staff which is able to cope only with the administrative aspects of follow-up on audit findings and recommendations, and determining that the commands and installations involved state in writing that changes are being made. They are not in a position to evaluate the changes described - except on a general experience basis - even if they had the time to study and understand what the command or installation intends to do. On very limited occasions (such as important repeat findings), a special team may be formed to visit an installation for a brief period of time to determine that action is being taken.

Such limitation on the attention and resources devoted to the determination that action is being taken on audit findings and recommendations - with practically no informed evaluation of that action - can endanger the effectiveness of the whole audit effort. Measurable dollar benefits of specific procurement actions stopped or terminated, or of payroll errors corrected, are only a small part of the potential benefits from audit. The major benefits should arise in the future through the installation of improved management controls and procedures. Yet the Army is attempting to determine that corrected procedures will be designed and effectively implemented primarily through the use of correspondence. Many of the changes required will be technical in nature and difficult to understand by anyone not thoroughly acquainted with the procedure and, probably, the particular installation. Correspondence is certainly not a method by which adequate assurance of effective implementation of changes can be obtained.

Recommendation:

We recommend, therefore, that this audit follow-up function be transferred from the Office of the Comptroller of the Army to the USAAA and that the USAAA:

- (1) Conduct the administrative follow-up activities to achieve concurrence and statement of action taken, in a manner similar to those methods now used.
- (2) Send such material to the District Office involved in the audit for review by audit personnel preparing the recommendation, to obtain an expression as to the adequacy of the contemplated actions.

- (3) After an appropriate time interval (say three to six months, depending upon the type of action required), have a supervisory auditor visit the installation to determine, in a very brief period of time, that changes have been made and that such changes seem reasonable to accomplish the purpose of the original recommendation. If the auditor has been involved in the formulation of the original recommendation, the time requirements for such broad evaluation should not be great.
- (4) Prepare a semi-annual report summarizing the status of implementation of recommendations. Such a report would probably be more meaningful on an exception basis - i.e., where no action had been taken within a reasonable period of time. The report should be directed to the Secretary of the Army and the Chief of Staff, with copies of the appropriate sections of the report to the commands and installations identified as having taken no action.

It is not intended by this recommendation to put the USAAA in the position of determining the action that management of the commands and installations must take. Rather, the purpose of this recommendation is to provide a means of establishing through an independent source that action has been taken and that, on the basis of the appraisal of a skilled auditor familiar with the situation, such action appears to be adequate to control the situation disclosed in the audit findings and recommendations.

Internal review personnel at headquarters
and installation levels

Internal review personnel at headquarters and installation levels, in most instances we have reviewed, report

to the comptroller of the activity. Most of these personnel have accounting and auditing training and experience and seem to be used in that capacity for much of their work. Such personnel are also used for liaison purposes with audit groups such as the GAO and the USAAA which are auditing the activity. In a recent letter, the Army Materiel Command indicated that internal review personnel (and others as appropriate) in AMC installations would be used to pre-audit those functions which the audit groups had announced they intended to audit.

The Comptroller of the Army has issued an audit instruction pamphlet for use by internal review personnel, when appropriate, and has provided a detailed audit manual and program for their use in auditing non-appropriated funds. We were not successful in obtaining any Army-wide totals of the numbers of employees classified as "internal review" personnel but were informed that the best available estimate was 1,000 to 1,200. Grades of such personnel at facilities we visited ranged from GS-11 to GS-14 for the professional personnel.

Everyone with whom we discussed the duties of such internal review personnel, including commanders of installations, comptrollers, internal review staff chiefs, and internal review employees, stressed the need for, the importance of, and the amount of assistance provided the commanding officer by internal review personnel in investigating operational problems of immediate impact. As members of the commander's staff with no essential routine day-to-day duties, internal review personnel could be and were used where most needed by the

commander at the moment. Certain of the assigned tasks were not necessarily accounting or auditing related.

We understand that the question of the relationship that should exist between internal review personnel and internal audit personnel has been studied, reviewed, and discussed over a period of years within the Army as well as at DOD level, and that no firm and satisfactory conclusion has been reached. Certainly, the brief time we have been able to devote to this question cannot be expected to produce a thoroughly documented study and conclusion. As a result of our discussions, however, we do have a number of impressions and suggestions which may be of some value in resolving this controversy:

Impressions:

- (1) The fact that most employees designated as "internal review" have an accounting and auditing background does not mean they are employed as internal auditors in the usual sense of the term. In fact, they are as much employees of the local installation as any other employee of that installation and carry out any duty assigned by the installation commander.
- (2) The fact that such personnel are not assigned routine repetitive duties does not make them independent of the commander of the installation or, for that matter, the comptroller. Their findings and reports, therefore, must be viewed in the light that they are designed to be of the greatest service to the commander of the installation.
- (3) The fact that such personnel are used by local commanders for many different types of investigations of management importance indicates that they are reliable, capable, and useful in their present capacity.

- (4) It is a fact that, in private industry, controllers at corporate headquarters as well as at major operating divisions and major plants have some limited number of investigative and analytical personnel of a similar type on their staffs, with no necessary relationships to corporate internal auditors.

Suggestions:

- (1) Continue to consider internal review personnel a normal part of the comptroller's staff at each installation, subject to the same manpower and budgetary controls as other members of the comptroller's staff, and do not consider them a normal part of the internal audit function.
- (2) Since internal review personnel are a normal part of the comptroller's staff, remove any requirement from the USAAA for special surveillance of their activities but continue to allow the USAAA to make use of such findings of internal review personnel as may be useful in the internal audit function.

The foregoing impressions and suggestions are given without consideration of the present requirement that internal review personnel audit non-appropriated funds at the installation. We understand that consideration is being given at high levels to alternative procedures for audits of non-appropriated funds. If such alternative procedures are ultimately adopted, appropriate reductions in personnel should be made at installations because of the time now devoted by internal review personnel to audits of non-appropriated funds.

PERSONNEL AND TRAINING

Our review of the recruitment, selection, training, evaluation, and promotion policies and procedures of the USAAA indicates that a great deal of thought and attention is devoted to this area of operations. This is desirable, since the Agency's effectiveness is completely dependent upon the quality of the personnel it is able to attract and retain - in the quantities required to complete its assigned workload.

We believe that the procedures used in this area are sound and well administered. Adequate training programs are available, and administrative procedures are effectively used to assure attendance at such courses of those assigned thereto. The amount of time programmed for training in relation to total staff time seems reasonable in relation to the experience of the larger independent public accounting firms. It is our impression that personnel at higher grade levels, particularly field personnel, because of the pressures of work, may not be attending as many training courses as would be desirable.

While we have not attempted to evaluate the content of the training courses, our findings in our review of workpapers lead us to believe that additional emphasis and course time should be devoted to specific audit techniques.

Recommendation:

We recommend that specific instruction and test cases be included in training courses relating to:

- Scheduling of material for inclusion in workpapers.
- Assembling and summarizing of workpapers.
- Explaining bases for tests of transactions.
- Essential material for inclusion in workpapers.

- Use of "permanent" files for installations containing organizational and procedural data.
- Signing of program steps in lieu of detailed descriptions on work schedules.
- Use of confirmations as an audit procedure.

Adequate training in such specific techniques can assist in reducing audit time.

We also believe that the training courses provided auditors in connection with automatic data-processing (ADP) equipment (more commonly referred to as EDP) should be directed more specifically toward (a) auditing of the controls surrounding the use of such equipment and controls used in the programs by which such equipment is operated, and (b) the use of special audit programs to assist in auditing "through" EDP equipment rather than around it.

The Army has recently established certain centralized commands for the purpose of developing and maintaining multi-command systems using EDP equipment. The USAAA has assigned a number of its auditors to be resident at the major locations where these systems are being developed to determine that adequate audit trails and controls are included in the system design and to develop audit guides for use in auditing such systems. We heartily endorse this action.

It has been our experience, however, that a limited number of personnel highly skilled and experienced in the EDP field - persons who have actually done technical design, programming, and implementation of systems using EDP - are

essential for adequate evaluation of controls and audit trails. Such EDP specialists working with skilled audit personnel with a good knowledge of EDP can provide far greater assurance of success than the use of audit personnel alone - even though these audit personnel have had a reasonable amount of EDP training.

Recommendation:

We recommend, therefore, that the USAAA employ experienced EDP specialist personnel to work with the audit-trained personnel in the computer system development commands. We have been informed that there is difficulty in securing a high enough compensation level to attract capable, experienced EDP specialists since, in government, the higher salary grades are related more to management and supervisory responsibilities than to technical capabilities. If this is a problem that cannot be solved within existing salary structures, we suggest that concerted action be taken by the Department of Defense to change the salary structures to provide for adequate compensation for highly specialized personnel. This is not a unique problem but one which faces the entire U.S. Government, and it must be resolved if the Government is to make adequate use of computers.

The management audit concept requires the auditor to work in many functional areas for which his training has not provided specialized knowledge. Such areas include not only EDP, as commented on above, but inventory control, material requirements determination, production control and scheduling, procurement, and maintenance, among others. Through the training of audit personnel and through on-the-job experience, the USAAA has done effective audit work in these

areas. We believe, however, that audit effectiveness and audit efficiency can be improved by the use of limited numbers of personnel trained and experienced in these additional specialized areas to work with audit personnel in developing audit approaches, programs, and techniques.

Recommendation:

We recommend, therefore, that personnel with training and experience in specialized areas other than accounting and auditing be employed to work with audit-trained personnel in the formulation of audit approaches, programs, and techniques, and to assist on a limited basis with actual audit work. We believe, on the basis of our experience, that this approach can be most helpful in improving audit quality and efficiency.

A recent study by the Comptroller of the Army, conducted at the request of the Chief of Staff, concluded that the USAAA could profitably use an increased number of auditors, and recommended an increase in personnel authorization of 303 spaces to a total authorization of 1,235, beginning in fiscal year 1972. On a temporary basis, 25 enlisted-personnel spaces were approved for audit assignments - mostly overseas. This approval increased authorized spaces for the USAAA to a total of 957 at the present time.

During the period of our review, a budget problem arose for the fiscal year 1970. Because of across-the-board salary increases granted to all civilian employees and across-the-board increases in travel allowances granted to all personnel, funds provided in the USAAA's budget for the fiscal

year 1970 were not adequate to finance all authorized personnel spaces for the entire fiscal year. It was not until mid-March of 1970 that additional funds were secured which enabled the USAAA to continue operations through June 30, 1970 with its authorized number of personnel. Travel was curtailed for a period of time, and some rearrangement of audit schedules was made to reduce work in travel-status locations.

Initial USAAA Budget Guidance dollar amounts for fiscal year 1971 are estimated to be almost \$1.9 million below the amount required for presently authorized civilian employee spaces. The salary increase recently approved will add an additional \$800,000 for present space authorizations, making the deficit about \$2.7 million. Thus, it appears that, unless additional funds are provided, the present staff must be reduced in number and the work program curtailed.

The foregoing matters are cited to indicate the problems encountered by the USAAA in establishing annual programs to recruit and train auditors who are in great demand on a national basis - by public accounting firms, by industry, and by government. Staff planning for several years in advance is essential to provide the required staff and capabilities to insure efficient and effective audits. Since experienced auditors are scarce and difficult to employ, most staff has to be recruited at the college level and given formal and on-the-job training over a period of years. This means that, regardless of fund limitations, only a limited number can be employed each year because of inability to train and use the new staff effectively on an immediate basis. It is not feasible

therefore, to increase staff size in any one year by a major percentage, such as the 303 additional spaces discussed above, which represents more than 40% of the size of the present professional audit staff of approximately 700.

It appears, therefore, that no substantial improvement in present audit coverage can be anticipated in the next few years - even if the spaces are authorized and funds provided in fiscal year 1971.

Recommendations:

We recommend that audit staff requirements be planned for several years in advance, giving recognition to the anticipated level of activities of the Army. If required staff levels are higher than present actual levels by substantial amounts, increases should be planned for each year in limited numbers of auditors (no more than 100 each year, at most) to assure the effective and efficient utilization of the new staff.

If reasonable assurance can be obtained from the Secretary and Chief of Staff levels that these long-term plans would be considered favorably, consistent recruiting programs can be established at the college level. This is extremely important if the USAAA is to attract a reasonable number of qualified candidates.

AUDIT COVERAGE AND FREQUENCY

An oversimplified statement of the responsibility of the USAAA for audit coverage and frequency is that the Agency is charged with auditing some 600 installations or organizations every 24 months. It is no secret to anyone in the Department of the Army that the USAAA is not accomplishing this objective.

The study, previously mentioned, conducted by the Comptroller of the Army at the request of the Chief of Staff indicated that the interval between audits of installations was 41.2 months in fiscal year 1968 and 52.8 months in fiscal year 1969, and was projected to increase to 57.6 months in fiscal year 1970. The study recommended that 303 additional personnel spaces be provided.

In addition, we noted in our review that no audits were undertaken at major Department of the Army headquarters levels except staffing and review in conjunction with army-wide and command-wide audits.

Recommendation:

We recommend that audit coverage be expanded to include audits of these major DOA headquarters, even though this increases the demand for audit time.

It was our impresssion that USAAA auditors go to great lengths to be certain of the frequency of occurrence of a particular type of error or a specific deficiency in a system. This is understandable, since many of the management functions now being audited are new to the auditors and since managers of the operating functions being reviewed are not accustomed to being audited. Therefore, the tendency on the part of the auditor is to document his case with numerous examples and, in this way, overcome many arguments which might otherwise arise. However, if an understanding were reached

with top management levels (Secretary and Chief of Staff) that they were willing to tolerate the possibility of a reasonable degree of error in the original audit findings, we believe it would be possible to reduce the extent of detailed checking and substantiation. This, we believe, might well reduce audit time substantially if management at the local levels would give serious consideration to the findings without additional major amounts of verification.

We do not mean that local management should accept any finding without thorough consideration, but that it should be reasonable about the extent of verification required. If, for example, the audit test of the first 50 items in a sample discloses an error rate of 40%, it hardly seems necessary to complete the testing of an additional 150 items to meet the requirements of a statistical sample.

If similar types of findings were disclosed at four or five installations, it would seem reasonable to suppose that such difficulties existed in other installations of that type, without conducting audits at ten or fifteen more installations to arrive at the same conclusion.

This approach does contain elements of risk, as related to the reputation of the USAAA for accuracy, but it would seem that the value of the additional audit coverage which could be achieved should more than offset the small degree of risk entailed in reducing the extent of auditing in circumstances such as those described above.

Recommendation:

We recommend that studies be undertaken by the USAAA, based on past experience, of the potential risk of reaching incorrect conclusions by reduced audit coverage and checking versus the potential benefit in reduced audit time requirements. The results of such studies should be provided to top management - the Secretary and the Chief of Staff. We believe that there is a possibility for substantial reductions in audit time requirements, if top management of the Army were willing to accept the risk involved in reduced checking and in reduced examples of error situations, with supporting documentation.

At the present time, the USAAA is required to review submissions under the Cost Reduction Program and to audit in some detail those reported savings in excess of \$100,000. Such audits require a considerable expenditure of man effort (estimated at 6% of available audit time), with very few constructive results. We made no attempt to review the Cost Reduction Program but can understand the desirability of having some audit of reported savings in view of the percentage of reports of savings rejected. Our discussions with audit supervisors and directors indicated that regulations concerning the Cost Reduction Program were complex and confusing.

Recommendation:

We recommend that guidelines and regulations be clarified and improved to permit the determination of savings with much greater reliability and thus reduce the amount of auditing effort required in conjunction with the Cost Reduction Program.

AUDIT PROGRAMS, PROCEDURES, AND WORKPAPERS

Our reviews of the preparation and use of audit programs, audit workpapers, and workpaper review procedures indicated that these are all areas in which significant improvements can be achieved. In brief, our reviews indicated that:

- (1) Excessive material is accumulated in workpapers.
- (2) Excessive scheduling and scheduling of unnecessary detail are carried out.
- (3) Entire work programs are prepared specifically for each audit instead of using standardized program modules which can be amended for special audit purposes - even though the functions audited may be common to many locations.
- (4) Work done is noted on each schedule in some detail, instead of having the auditor initial and index the work program.
- (5) Even though the workpapers are thoroughly indexed in most cases, it is difficult to follow through the workpapers from detailed findings to audit recommendations (SOCARs) because of a lack of summary schedules (lead schedules).
- (6) Few of the workpapers we looked at bore specific evidence of detailed workpaper reviews by audit supervisors and audit directors, although in most cases some review could be inferred through

comments on work schedules. No audit review checklists were used to demonstrate adequate review.

- (7) In only a few cases were "permanent" files used to accumulate data on installation organization, procedures, staffing, etc. In most cases such information was incorporated throughout the workpapers, making it difficult to carry the data forward for use in subsequent audits.

We have previously commented on the need to include in training programs specific instructions on certain of the items included in the above list.

Recommendation:

To effect improvements in such matters, it will be necessary to expand policies to include specific information on the items described above, to publish those revised policies, and to prepare specific examples and test problems for use in classroom training. We recommend that these steps be taken forthwith and believe that a reduction in audit time will result.

Most of the foregoing is self-explanatory to technically trained audit personnel. The use of standardized programs is a somewhat controversial subject, however, so we wish to comment on that matter further. The USAAA has published general guidelines for audit approaches in a number of areas, but these are too broad to be used as specific audit programs.

Recommendation:

We do not advocate that standardized programs be used routinely for audit purposes. Rather, we recommend that standardized programs be prepared for quite a number of common functions, and that the audit directors or audit supervisors change, eliminate, or add audit steps as required to attain the audit objectives desired in any specific examination. Such common functions can include:

- organization evaluation,
- civilian payroll,
- personnel records,
- requisition fulfillment,
- inventory records,
- procurement records,
- finance and accounting records,
- unliquidated obligations,

and probably others.

We believe that a number of important benefits can be derived from the use of such standardized program modules:

- (1) Greater assurance of adequate consideration of the important audit points for each function.
- (2) Greater uniformity of audit effort throughout the installations audited.
- (3) Reduction in effort and time as compared with the present approach of writing each program manually, with complete review of steps by audit supervisors and directors.

Such programs should be prepared at headquarters, duplicated in a form which can be included in each set of workpapers - including a space for initialing and indexing (if required) by the auditor who performed the audit step - and distributed to District Offices for use in audit workpapers. So long as each District Manager is given authority to change such standardized programs as needed to meet specific audit objectives, use of these programs should not lead to unthinking,

routine application of audit steps. Our intent is to provide the basis for an adequate audit of each common function without forcing each audit supervisor to manually write the complete text of each program - i.e., to provide audit "modules" which can be combined to achieve specified objectives.

In an organization as widespread geographically as the USAAA, determination of adherence to established policies - particularly by auditors whose whole training has been directed toward independence - is a difficult matter. We recommend that a procedure similar to that described below be used to assist in determining compliance with existing audit policies and procedures.

Recommendation:

We recommend that two or three audit review teams, of about four persons each, be formed each year. Only the most capable and potentially promotable audit directors and audit supervisors should be appointed to these teams. Each team should be under the leadership of an audit director, and three audit supervisors should be selected to work with him. At least three different audit districts should be represented on each team. The team should then be sent to a District Office which is not represented on the team to review selected reports, check the findings back to the workpapers, and review the workpapers for:

- (1) Adequacy of coverage of function.
- (2) Adequacy of programs.
- (3) Adequacy of documentation (or excess of documentation).
- (4) Disposition of findings and adequacy of report in view of findings.

- (5) Use of statistical sampling, where applicable, and reasonableness of degree of error and confidence limits used in samples.
- (6) Use of programs to indicate work done rather than substantial explanations on schedules.
- (7) Reasonableness of audit time used for the work, and areas where time might have been saved.

Such reviews should be performed for no more than two or three audits at each District Office, which we estimate should take no more than two weeks for the review team. At the conclusion of the work, a report should be prepared by the team, signed by the leader of the team, and submitted to the District Manager. A copy of the report should be sent to headquarters.

We have found that the use of audit supervisory personnel in such a program is effective, in that criticism is given by men who are confronted by similar problems in their daily efforts, and who understand the practical difficulties involved. It is a particularly good training device for those who perform the reviews, in that it makes them think solely about such matters for a reasonable period of time, enables them to exchange views on such matters, and may well lead to suggestions for improving audit techniques. It also makes the team members particularly aware of the need for applying good audit and workpaper techniques in their own work, since one of their jobs might be selected for review the following year.

If the team members are selected from those persons who will probably become audit directors and district managers

in the future, the benefits gained will be multiplied because of the insistence of such persons on the application of good working habits and audit procedures on the audits they supervise.

The USAAA has developed a training course for the use of statistical sampling by their auditors. Much of the work involved in this comprehensive course can be done by home study and correspondence, with relatively short periods of classroom activity. The course is directed toward an understanding of the mathematics used in the development of sample sizes. We believe that it would be desirable to stress the practical application of sampling and the selection of reasonable limits for error ranges and confidence levels.

Recommendation:

We recommend that additional training material, stressing the practical application of statistical sampling techniques, be provided to USAAA auditors. Headquarters, USAAA, should provide guidance in the practical application of these techniques and look for evidence of the proper use of statistical sampling in its field reviews.

REPORTS

Our review of a reasonable sampling of reports of various types (representing different kinds of installations and Army-wide audits) indicated that reports were well written and adequately descriptive of major findings, conclusions, and recommendations as well as of the command's

position on the findings and recommendations. Reports or summaries of conclusions and recommendations (SOCARs) are distributed to sufficiently high levels of command to secure "top management" attention on the situations disclosed. Reports are distributed directly by the USAAA to all Army levels. We believe that an excellent reporting channel exists and is being effectively used.

However, because of the policy not to include in audit reports a statement of the specific scope of the work performed, there could be some misconception on the part of readers as to the extent or depth of the work in the areas covered. We, at any rate, found it difficult to secure a reasonable understanding of the purpose and scope of an audit from a reading of the report, since the statements included in this section of the report tended generally to be somewhat stereotyped and, in most cases were not sufficiently informative as to where the audit effort had been concentrated. Consequently, readers could be somewhat misled as to the actual scope of the audit.

Recommendation:

We recommend, therefore, that a schedule be included as an appendix to each audit report, specifying the functions which were reviewed and audited. In this way, the information will be available for use if desired but will not complicate the body of the report itself. In those instances where only SOCARs are presently submitted to particular levels of command, they should be accompanied by a statement of the scope and purpose of the audit.

It has become routine, apparently, to include a paragraph in each audit report stating, in effect, that the mission of the installation has been carried out effectively and efficiently. Such paragraphs have been included in reports containing findings and recommendations which appeared to us to contradict completely the routine statement as to effectiveness and efficiency. We do not make any recommendation regarding inclusion of this routine paragraph, because we are in no position to evaluate the overall effectiveness of the operation of any installation. We suggest, however, that the officials of the USAAA seriously question the desirability of routinely including this paragraph in all audit reports.

For the most part, reports of the USAAA seem to be issued within a reasonable period of time after the conclusion of the field work. Procedures require that findings and recommendations (SOCARs) be cleared individually, with the installation being audited during the course of the work, so that no major delays are encountered by clearing all findings after conclusion of the field work. Some situations were noted in which reports were delayed, but specific reasons were found to exist for these delays.

The USAAA has established procedures for issuing "flash" reports when conditions requiring immediate action are disclosed. Several situations were noted in which such flash reports were used quite effectively to achieve rapid action in preventing or cancelling procurement.

EDP AUDITING

Comment has been included elsewhere in this subcommittee's report concerning the auditing of EDP applications and the use of EDP equipment for auditing purposes. In brief, the USAAA is making some progress toward these objectives but in a limited way and somewhat slowly. Recommendations have been included in this report which we believe will provide a basis for more rapid progress.

A separate report dealing exclusively with EDP auditing is being prepared by another subcommittee.

CIVILIAN ADVISORS

During the course of our review, it became apparent that USAAA personnel welcomed discussions on current developments in auditing, the use of computers, and other similar activities, outside of government. Other high-level officials indicated interest in developments in management control techniques and similar matters.

Recommendation:

We recommend that two knowledgeable civilians from outside the DOD be appointed, on a voluntary basis, to consult with and advise the Secretary of the Army and the Chief, USAAA, on internal auditing and on accounting policies and practices.

We believe this action can be most helpful in providing a source of information regarding current developments in auditing in industry and in the public accounting profession. In addition, these advisors should serve as representatives to

an OSD advisory committee on internal audit in the event such a committee is formed at that level.

UNITED STATES ARMY AUDIT AGENCY

SCOPE OF REVIEW

Objectives

Evaluate:

1. Relationships within and external to the DOD.
2. Organizational structure.
3. Nature, extent, and adequacy of audits and auditing procedures.
4. Personnel management.
5. Quality, timeliness, and usefulness of findings and recommendations.
6. Implementation of recommended changes.

Review activities

1. Receive briefings on objectives, organization, methods of operations, reporting, and accomplishment.
2. Secure and study:
 - a. Authorizing regulations.
 - b. Internal operating instructions and organization charts.
 - c. Various types of USAAA reports selected at random from list of reports issued in fiscal years 1969 and 1970.
3. Discuss operations at USAAA Headquarters:
 - a. Personnel recruiting, selection, and training.

- b. Personnel administration and career development.
 - c. Planning of audit activities and assignment of audit personnel.
 - d. Technical supervision of field activities.
 - e. Report review, release and distribution.
 - f. Responsibility for follow-up on recommendations in audit reports.
 - g. Relationships with higher headquarters and with other governmental agencies.
 - h. Coordination of activities with other audit agencies, including the GAO, and with internal review groups.
 - i. Review random sample of documentation in support of information provided orally.
4. Discuss with Comptroller of the Army and his representatives:
- a. Compliance and follow-up on audit report findings and recommendations.
 - b. Internal review activities.
5. Discuss with representatives of the GAO coordination of audit activities and use of findings of the USAAA.
6. Discuss with The Inspector General and his representatives activities which they carry out and the degree of coordination with USAAA. Review two reports of TIG, for two installations which had been audited by the USAAA within the same year, and review USAAA audit reports for the same installations.

7. Randomly select 3 or 4 reports issued by each of four USAAA District Offices for careful review and follow through to District Offices to review workpapers for:
 - a. Coverage of audit.
 - b. Adequacy of programs.
 - c. Adequacy of documentation.
 - d. Evidence of independence in carrying findings through to audit reports.
 - e. Evaluation of audit time required.
 - f. Quality of work.
 - g. Use of installation internal review staff findings in audit work.
8. Discuss with District Manager:
 - a. Organization of district.
 - b. Recruitment, selection, training, and supervision of personnel.
 - c. Scheduling of work, scheduling of staff, determination of staff levels, and estimation of audit time requirements.
 - d. Establishment, staffing, work scheduling, supervision, and reporting of residencies at major installations.
 - e. Relationships with headquarters of USAAA and with other audit agencies, including the GAO.
9. Visit several residencies at major installations to discuss operations and relationships with installation personnel and other audit agencies.

10. Discuss with commanding officers and certain members of their staffs at several of these major installations:
 - a. Relationships with the USAAA.
 - b. Timeliness and usefulness of audit findings.
 - c. Relationships between internal review staffs and the USAAA.
 - d. Duplication, overlapping, or gaps in audit coverage by various audit agencies, including the GAO. DCAA, TIG, and AMC materiel review teams.
 - e. Appraisal from management viewpoint of audit areas and audit coverage.

HEADQUARTERS AND INSTALLATIONS VISITED
AND COMMANDERS AND SUPERVISORS INTERVIEWED

Department of the Army Headquarters

Assistant Secretary of the Army (Financial Management)

Hon. Eugene M. Becker

Comptroller of the Army

Lt. Gen. Frank J. Sackton, Comptroller

Mr. Richard Bennewitz, Deputy Comptroller

Brig. Gen. J. W. Gunn, Director of Management Review
and Analysis

Mr. S. Ruddel, Deputy Director, Management Review and
and Analysis

Mr. W. P. Revis, Chief, Audit Compliance Office

The Inspector General

Maj. Gen. William A. Enemark, TIG

Col. D. S. Daley, Chief, Inspections Division

U.S. Army Audit Agency

Headquarters:

Maj. Gen. H. G. Sparrow, Chief

Mr. William Bishop, Deputy Chief

Mr. Joseph D. Ramsey, Director, Office of Audit Plans,
Programs & Policy

Mr. E. L. Gealt, Assoc. Dir., Audit Plans & Policy

Mr. J. D. Moore, Assoc. Dir., Systems Audit

Mr. W. Brown, Managing Auditor, Computer System
Command Residency

Mr. R. M. Theuret, Assoc. Dir., Audit Review & Eval-
uation

Mr. I. W. Jennings, Director, Office of Logistical
Audits

Mr. R. A. Killmeir, Assoc. Dir., Maintenance Audits

Mr. J. W. Fawsett, Assoc. Dir., Research & Develop-
ment Audits

Mr. J. A. Busardo, Assoc. Dir., Storage & Distribu-
tion Audits

Mr. I. C. Lippman, Director, Office of Commands & Staff
Audits

Mr. T. A. Grant, Assoc. Dir., Manpower Res. Affairs

Mr. S. D. Bettes, Staff Manager

Mr. F. G. May, Chief, Professional Training

Mr. W. M. Waterman, Chief Personnel Officer

Northeast District:

Mr. Harold E. Robello, District Manager

Mr. E. W. Dorcheus, Asst. District Manager

Mr. Martin McHale, Audit Director

Mr. Claude Zimbaldi, Audit Director (Resident at
Picatinny Arsenal)

East Central District:

Mr. Dan C. Crowley, District Manager

Mr. William B. Cruitt, Staff Manager

Mr. William F. Thomas, Audit Director

Mr. Dan Arnholds, Audit Director

Mr. Norman Sampson, Audit Director (Resident at USATACOM)

Southern District:

Mr. Robert Santoro, District Manager

Col. F. A. Gleason, Jr., Deputy Chief (Field)

Mr. Pinkney M. Ryan, Audit Director

Mr. Milton W. Waring, Audit Director

Mr. Arthur L. Cummings, Audit Director

Mr. Marshall C. Anderson, Audit Director

Mr. Kenneth Shaw, Supervisor (U.S. Army Missile Command Residency)

Western District:

Mr. J. P. Cody, District Manager

Col. J. H. Grant, Jr., Deputy Chief (Field)

Mr. J. C. MacKintosh, Audit Director

Mr. J. W. Andrews, Auditor in Charge, COSMOS Residency

Mr. G. A. Lane, Data Processing Coordinator, COSMOS

USATACOM (Tank Automotive Command)

Maj. Gen. Sheldon E. Lollis, Commanding General

Mr. Richard H. Ruhland, Comptroller and Director of Programs

Mr. Hugh Black, Chief, Internal Review and Compliance Division

MUCOM (Munitions Command)

Brig. Gen. E. R. Graham, Commanding General

Lt. Col. W. Craft, Comptroller

Mr. S. Samptom, Deputy Controller

Picatinny Arsenal:

Col. W. A. Walker, Commanding Officer

Mr. R. J. Kelly, Comptroller

General Accounting Office

Mr. Hassell B. Bell, Assoc. Dir., Support Services, Defense Division

Mr. J. K. Fasick, Assoc. Dir., Supply Management, Defense Division

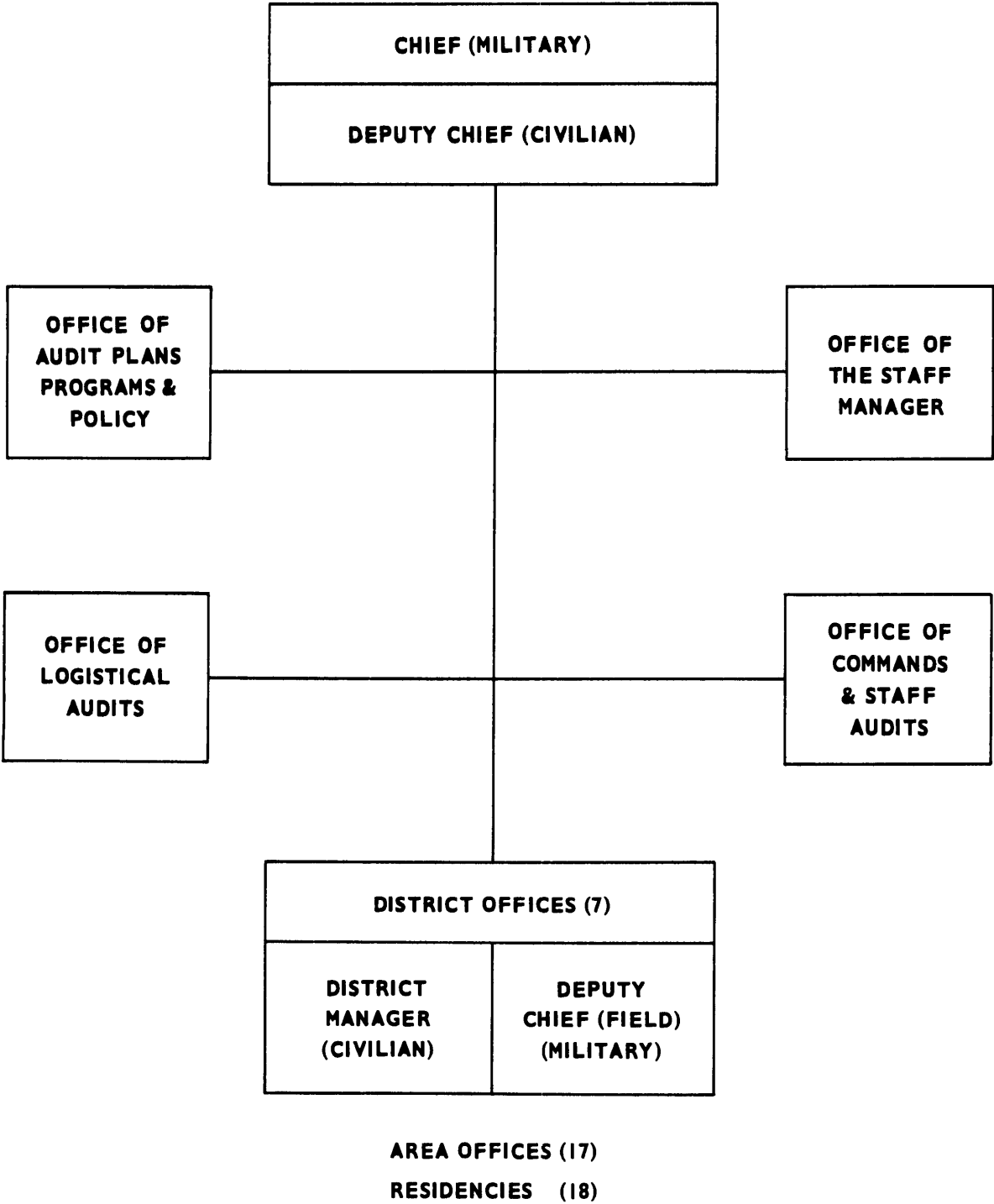
Mr. Robert Stettner, Off. of Assoc. Dir., Manpower, Defense Division

Mr. Charles Moore, Regional Manager (Detroit)

Mr. Frank Curtis, Deputy Regional Manager (Detroit)

U.S. ARMY AUDIT AGENCY

SUMMARY CHART OF ORGANIZATION



DESIRABLE QUALIFICATIONS
FOR THE POSITION OF
CHIEF, UNITED STATES ARMY AUDIT AGENCY

Education

Bachelor's degree with major in accounting, as a minimum.

Master's degree with major in business administration or industrial management desirable.

Experience

Minimum of 15 years of full-time experience in financial and operational auditing, including management services activities.

Latest five years of experience should be in an audit managerial capacity with a large industrial organization, governmental organization, or large public accounting firm; such organization or firm should be of sufficient size and diversification to assure a broad knowledge of organizational, financial, operational, and data-processing problems and techniques for auditing in such situations.

Professional attainments

Participation in professional and technical associations' functions.

Good record of speaking engagements and publication of papers and articles in major professional and technical publications.

Personal qualities

Demonstrated record of independence of mind and actions in difficult circumstances.

Demonstrated record of leadership in large and complex organizations.

Demonstrated record of diplomacy and tact.

NAVY

REPORT OF THE
U.S. NAVY SUBCOMMITTEE

AICPA ADVISORY COMMITTEE
TO
BLUE RIBBON DEFENSE PANEL

MAY 1970

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SUMMARY

TASK DESCRIPTION

The AICPA Advisory Committee to the Blue Ribbon Defense Panel was established to review and evaluate the principal policies, plans, and procedures relating to contract audit and internal audit functions within the Department of Defense, including:

- (1) Organizational structure.
- (2) Nature and extent of audits and adequacy of auditing procedures.
- (3) Personnel management.
- (4) Quality, timeliness, and usefulness of audit reports and implementation of audit recommendations.
- (5) Audit relationships within and external to the Department of Defense.

The U. S. Navy Subcommittee was established in December 1969 to undertake the study outlined above as it relates to the entire Navy Department and the Marine Corps.

SCOPE OF REVIEW

The U. S. Navy Subcommittee visited three major field offices of the Naval Audit Service - namely, Norfolk, Philadelphia, and San Diego - in addition to the organization's headquarters in Falls Church, Virginia. Selected activity sites were visited at each of these locations to review the work of the continuous audit teams and to examine the operations

of the "internal review" sections. Our study included:

- Meetings with top officials of the Naval Audit Service (NAS), key officials of its "clients," and other high-level officials of the Navy, the Marine Corps, and the Office of the Secretary of Defense.
- Visits to audit site locations and interviews with internal auditors in the field.
- Review of selected audit reports and related workpapers.

The locations visited and the officials and other individuals interviewed by subcommittee representatives are identified in Exhibit 1. The subcommittee wishes to thank all those who assisted its members during their visits for their fine cooperation.

Our review and evaluation of the Naval Audit Service have been broad in scope. Because of the nature of our task, we did not consider it necessary to perform an "in-depth" investigation to establish detailed, specific evidence for every aspect of our findings. We believe, however, that our findings and recommendations, viewed in the light of the professional experience of our subcommittee members, are reasonably supported.

GENERAL EVALUATION

We found that the Naval Audit Service operates on a high professional level. The findings and recommendations included in its audit reports are generally accepted and

acted upon by Navy and Marine Corps management. At all sites visited, we found that good relationships exist between NAS personnel and management of the activity being audited. The NAS is to be commended for its achievements in this regard.

The fact that, in this report, our subcommittee is recommending certain changes should not be construed as criticism of the Naval Audit performance. Our recommendations are intended to improve the efforts and effective capability of the NAS in its primary goal of rendering "service to management" within the prescribed budgetary limits.

RECOMMENDATIONS

Organization

See
page

- (1) The Auditor General (Director) of the Naval Audit Service should report directly to the Secretary of the Navy. 9
- (2) The positions of Auditor General (Director), Deputy Director, and area directors should be staffed by civilians rather than military personnel. The qualifications for the position of Director should include substantial experience and expertise in professional auditing. We believe, however, that a Naval and a Marine Corps officer should be assigned at the headquarters level and at area audit offices to provide the necessary military liaison for a transitional period. We agree that the present practice of assigning junior officers to audit staff is beneficial to their overall military development. 9
- (3) The position of Auditor General (Director) should be not lower than GS-18. 9

- (4) The audit staff should be entirely civilian (subject to the minor exception expressed in the Recommendation 2 above) in order to maintain the necessary degree of independence, objectivity and the desirable degree of stability, and to provide more attractive long-term career opportunities for civilian personnel. 10
- (5) Further study should be made of the internal review function, in the many forms and under the many titles in which it is actually being conducted throughout the Navy Department. 11

Coordination with other audit and
investigative agencies

- (6) There should be greater coordination between the NAS and the Deputy Comptroller for Internal Audit (DCIA). Such coordination should encompass long-range planning, audit policy, the conduct of audits, and the training and recruitment of personnel. 13
- (7) The NAS should take immediate measures to strengthen its Coordinated Audits Division so that it can effectively handle "assist" audits requested by other Government audit agencies. 14
- (8) The area of procurement and the division of audit responsibility in this area should be re-examined with a view to strengthening the coordination of the audit procedures of the three agencies involved to reduce potential audit gaps. 14
- (9) Although the reports of the Naval Inspector General need not be made available to the NAS, any findings therein which disclose potential audit leads of interest to the NAS should be communicated in writing to the NAS as soon after release as possible. 16

Personnel and training

- (10) There is a significant amount of centralized training which should be performed at the

- DOD level. This would permit the utilization of professional educators in designing and conducting the courses and the use of more sophisticated training aids. 16
- (11) The course material used in the NAS institutes should place greater emphasis on audit and workpaper techniques than it presently does. 16
- (12) Hiring policies should be based on a long-range program of departmental development, and the establishment of such a program should receive a high priority. 17
- (13) There should be better grades and salary inducements at the higher levels to motivate a greater number of competent professionals to join the NAS and to remain in it. 17
- (14) A number of EDP specialists should be employed to give courses at the NAS Institutes and to work with audit-trained personnel at computer installations to develop the required EDP auditing capability in the NAS. 18
- (15) The NAS should employ a number of specialists in areas outside accounting and auditing for the purpose of developing audit programs and techniques for these specialized areas and to assist, where required, with actual audit work. 19

Audit coverage and frequency

- (16) An effort should be made to increase the frequency of audits of major activities and installations. 19
- (17) All headquarters levels, including the Assistant Secretary level, should be subject to regular internal audits. 19
- (18) Consideration of an increase in the number of NAS audit personnel should be given the highest priority to

- permit the fulfillment of Recommendations 16 and 17. 19
- (19) The NAS should continue its emphasis on management-type auditing as offering the greatest potential benefit for the audit dollars spent. 20
- (20) Audit tests and investigations should be limited to the point where audit findings clearly identify a significant problem and support a reasonable conclusion as to its scope and frequency. 20
- (21) What constitutes an acceptable "cost reduction" should be defined more clearly and specifically in the DOD regulations governing the Cost Reduction Program. 21
- (22) Submissions under the Cost Reduction Program should be reviewed or audited on a selective basis, relying upon the professional judgment of NAS supervisory personnel. This would make a significant number of additional man-hours available for other audit assignments. 21
- (23) The long-range plan for expansion of the NAS should be re-instituted as soon as possible. 22
- (24) The highest priority should be assigned to maintaining the NAS staff at full strength at all times. 22

Audit programs, procedures, and workpapers

- (25) Pre-audit planning should be refined and expanded to include a detailed statement of the objectives to be achieved, the budgeted man-hours, the nature of the manpower required, and the areas to be audited. There should also be a review and evaluation of the statements of objectives and procedures followed. 23
- (26) Time budgets should be based upon a predesigned audit program. 24
- (27) The objectives of the audit should be clearly specified to the field auditor. 24

	<u>See page</u>
(28) Field auditors should be required to explain significant variances from original man-hour budgets.	24
(29) There should be greater evidence of involvement on the part of supervisors in the planning, performance, and review of audits.	24
(30) Audit review teams consisting of competent, experienced supervisors from several field locations should be established to visit other locations to review workpapers, audit reports, audit programs, documentation of findings, audit techniques employed, time required, etc.	25
(31) The NAS should enforce the use of statistical sampling as an audit tool to reduce the time required on many audits and to make available as a by-product, additional man-hours for other audit assignments.	26
(32) Standard audit programs should be prepared for specific applications, as is contemplated by those programs now available. These programs, however, should be supplemented with a list of audit steps specifically applicable to the location being audited. The supervisor designing the audit program with the field auditor can check off the specific audit steps that must be performed in the field, and at the same time establish an appropriate man-hour budget for each step.	26
(33) On completing an audit step, the field auditor should be required to sign off accordingly on the audit program, indicating the date of completion.	26
(34) Deviations from the prescribed audit program should be required to be explained in writing in the workpapers and to be approved by the supervisor.	26
(35) Headquarters should establish policies to be followed by the entire NAS concerning the form and content of workpapers,	

including evidence of audit steps performed, findings, conclusions, and subsequent review.

27

Reports

- (36) Criteria should be established to limit the number of reports that must be cleared through headquarters. 28
- (37) Built-in time delays before a report may be released for broad distribution should be eliminated. 28
- (38) A definite procedure should be established for reviewing the implementation of suggestions and recommendations made in audit reports within a specified period (e.g., six months) after a report has been distributed. 30

Civilian advisors

- (39) At least two highly qualified, knowledgeable individuals from industry and the professions should be appointed to serve on a voluntary basis as advisors to the Secretary of the Navy and the Auditor General on internal auditing and related policies and practices. 32

DISCUSSION OF FINDINGS AND RECOMMENDATIONS

ORGANIZATION

The Navy Audit Service is headquartered in Falls Church, Virginia, and includes six area offices located in Washington, D. C.; Boston, Mass.; Norfolk, Va.; Philadelphia, Pa; San Diego, Calif.; and San Francisco, Calif. Certain of these offices maintain branch offices and all have resident auditors at major audit sites.

Auditor General

The Navy Audit Service is directed by Rear Admiral Roland Rieve, Auditor General, who reports to the Assistant Secretary of the Navy (Financial Management), who is also Comptroller of the Navy. The Deputy Director is a Captain in the U.S. Navy. Marine Corps liaison is effected by the assignment of a Lieutenant Colonel, USMC, to the headquarters office.

The directors of the area offices are military personnel (Captain), and in all cases their deputy directors are civilians. Marine Corps liaison is provided as required.

By the very nature of the organizations involved, the NAS is required, among its many responsibilities, to audit activities managed by men of high military rank or very high civilian status in the Navy Department and Marine Corps.

We believe that the independence and objectivity of the Naval Audit Service may be adversely affected by its present organizational placement within the Department of the Navy and

by the fact that the top supervisory positions are all presently filled by military officers.

Recommendations:

- (1) The Auditor General (Director) of the Naval Audit Service should report directly to the Secretary of the Navy.
- (2) The positions of Auditor General (Director), Deputy Director, and area directors should be filled by civilians rather than military personnel. The qualifications for the Director should include substantial experience and expertise in professional auditing. We believe, however, that a Naval and a Marine Corps officer should be assigned at the headquarters level and at area audit offices to provide the necessary military liaison for a transitional period. We agree that the present practice of assigning junior officers to audit staff is beneficial to their overall military development.
- (3) The position of Auditor General (Director) should be not lower than GS-18.

Civilian staff

The Auditor General of the Naval Audit Service has expressed a preference for civilian versus military audit staff personnel. As noted above, however, the top supervisory positions are all presently filled by military officers.

At April 30, 1970, the Naval Audit Service employed 572 people in the following categories.

Military (All officers)	54
Civilian	<u>518</u>
Total	<u><u>572</u></u>

	<u>Total</u>	<u>HQ</u>	<u>Field</u>
Auditors	433		433
Executive staff	69	36	33
Administration	<u>70</u>	<u>19</u>	<u>51</u>
	<u>572</u>	<u>55</u>	<u>517</u>

The grade structure of the 518 civilian employees was as follows:

<u>Grades</u>	<u>People</u>
GS-15	9
GS-13 and 14	129
GS-9 thru 12	264
GS-8 and below	<u>116</u>
	<u>518</u>

Recommendation:

We recommend that the audit staff be entirely civilian (subject to the minor exception expressed in the second recommendation under "Auditor General" above) in order to maintain the necessary degree of independence and objectivity and the desirable degree of stability, and to provide more attractive long-term career opportunities for civilian personnel.

Internal review

Internal review personnel report to the comptroller of the activity at the installations in which we investigated this subject. Most of these personnel have accounting or auditing backgrounds and are used primarily in related types of work.

The internal review sections generally do financial-

type auditing, which involves payrolls, cash receipts and disbursements, and non-appropriated funds and also perform special audits, on a quick-response basis as required by the commanding officer of the activity. They are also used to implement the recommendations made by various internal audit groups. The internal review sections at the installations in which we studied this subject ranged in size from three to nine people, including the supervisor, with payroll grades ranging from GS-5 to GS-13. Because there is no universal definition of the role, titles, or responsibilities of internal review personnel in the Navy Department, it was not possible to determine how many people were performing internal review functions under other titles.

Generally, we found that the internal review sections have excellent relations with the local NAS personnel. Our observations indicate that, on the average, personnel staffing the internal review sections have lower technical professional qualifications than their counterparts on the NAS staff but appear to be quite adequate for the level of auditing they are called upon to perform.

The internal review function is intended to assist activity managements in the achievement of their objectives by performing analyses and tests of procedures and rendering reports and recommendations on a quick-response basis. Special audit requests to the NAS require approximately four to six weeks before an engagement can be started and considerably more time before a final report with recommendations is released for distribution.

Recommendation:

We did not study the internal review function in depth, and we believe that further study of this function in the many forms and under the many titles in which it is actually being performed throughout the Navy Department, would be desirable.

COORDINATION WITH OTHER AUDIT AND INVESTIGATIVE
AGENCIES

Outside the DOD - General Accounting Office (GAO)

The Navy Audit Service gives full recognition to, and makes appropriate use of, the work done by the GAO in areas which the NAS plans to audit. Both the NAS and the GAO attempt to coordinate their activities to minimize or eliminate the possibility of duplication of effort, except where the GAO may require some additional audit work to properly evaluate the NAS effort. It is our understanding that such overlapping is minimal, and the relationship between the two agencies appears to be very good.

Within the DOD - Deputy Comptroller for Internal Audit (DCIA)

We found insufficient coordination of activities between the NAS and the Deputy Comptroller for Internal Audit.

Although the yearly audit plan developed by the NAS recognizes that the Deputy Comptroller for Internal Audit will request special audits and although a certain amount of pre-planning is performed with the DCIA, such joint planning appears to be too limited. Since these special audit requests take precedence over the regular audit plan, the NAS frequently finds its program disoriented for the current year and

subsequent years.

Recommendation:

We believe that there should be greater coordination between the NAS and the Deputy Comptroller for Internal Audit (DCIA). Such coordination should encompass long-range planning, audit policy, the conduct of audits, and the training and recruitment of personnel.

Within the DOD - Defense Contract Audit Agency (DCAA)
and Defense Supply Agency

There are practical limitations on the auditing of procurement related activities because of the divided responsibilities in this area established by the DOD. The NAS may be involved only up to the point at which a contract is placed. After that point, the DCAA has responsibility for cost analysis and the auditing of contractors' records and performance, and the DSA has responsibility for a significant amount of contract administration.

Such division of an essential function dealing with vast sums of money requires a much greater than ordinary degree of coordination among the various DOD audit agencies involved. We found that the Coordinated Audits Division of the NAS, located at headquarters, appeared to be understaffed to perform its functions of planning, supervising, and reporting on audits involving other Government audit agencies.

Recommendations:

- (1) The NAS should take immediate measures to strengthen its Coordinated Audits Division so that it can effectively handle "assist" audits requested by other Government audit agencies.

- (2) The area of procurement and the division of audit responsibility in this area should be re-examined with a view to strengthening the coordination of the audit procedures of the three agencies involved to reduce potential audit gaps.

Within the DOD - The Inspector General (IG)

The Naval Inspector General, who reports to the Chief of Naval Operations, advised us that there was no significant area of overlap with the activities of the NAS. This same opinion was offered to us by key personnel in the NAS. The Inspector General concentrates to a major degree on military readiness, state of morale and discipline, physical facilities and housekeeping, and response to grievances and inquiries from members of the Congress on behalf of their constituents.

Of a staff of 24 in this particular IG office, the 18 professionals were practically all Captains (USN), and none possessed a professional audit background.

Although the IG receives copies of all NAS reports, the NAS does not receive copies of any IG reports, because of the need to protect confidences. However, meetings are held on an almost weekly basis between the Auditor General and the Inspector General to exchange significant information.

The relationship between the two agencies is considered very good.

Recommendation:

Although the reports of the Naval Inspector General need not be made available to the NAS, we believe that any findings therein which disclose potential audit leads should be communicated in writing to the NAS as soon after release as possible.

Within the DOD - Internal Review

The NAS works very closely with the internal review sections at the activities being audited. We found that the activities of the two groups are well coordinated, and the relationship between them appears to be excellent.

In the event that internal review personnel have performed audit work in an area to be audited by NAS personnel, the NAS evaluates the work done in planning its own audit effort.

PERSONNEL AND TRAINING

Training

An effort is made by the Naval Audit Service to provide continuing training for its professional staff and to update its training program periodically. New employees receive 80 hours of formal indoctrination. The Professional Service Division at NAS headquarters, under its professional development branch, plans all training programs for the Service and operates seven "institutes" in Washington, D. C. NAS staff members are expected to attend these institutes at appropriate points in their careers, but are not always able to do so because of a quota system based on budget limitations, limited classroom facilities, etc. Classes are mainly of the

seminar or lecture type, with emphasis on functions to be audited rather than methods of performing an audit. No course materials or training aids specifically designed for NAS purposes are used in these institutes, and there is no formal grading or other system of reporting student progress. Although the instructors appear to be adequate, there is no formal training program for instructors.

Under present conditions, the interchange of personnel among the various DOD audit agencies is not practical. If a centralized DOD-wide training program were established, however, such interchange would be possible, and a substantial pool of trained manpower, including specialists, could be available to all agencies.

Recommendations:

- (1) We believe that there is a significant amount of centralized training which can be better performed at the DOD level. This would permit the utilization of professional educators in designing and conducting the courses and the use of more sophisticated training aids.
- (2) The course material used in the NAS institutes should place greater emphasis on audit and workpaper techniques than it presently does.

Hiring and retention

We did not find personnel turnover to be a serious problem at the higher levels, but we were informed that turnover was becoming an increasingly serious problem at the lower levels, not only because of higher salary scales in industry but also because of higher salary scales in other

Government agencies. The pressures of such competition and budgetary limitations tend to create a greater than ordinary degree of instability in the NAS.

Civil Service rules apply in the case of all civilian staff personnel. Because of the limits imposed on grades and salary levels, the incentive for growth is removed after a man reaches a certain grade. The U.S. Navy military personnel are similarly limited in their salary levels by rank.

Recommendations:

- (1) We believe that hiring policies should be based on a long-range program of departmental development, and that the establishment of such a program should receive a high priority.
- (2) We believe that there should be better grades and salary inducements at the higher levels to motivate a greater number of competent professionals to join the NAS and to remain in it.

EDP specialists

We believe that audit personnel of the NAS require extensive training in the auditing of systems involving the use of electronic data-processing (EDP) equipment, the related programs. They also require special EDP audit programs to enable them to use the EDP to perform their audits, instead of auditing "around" the equipment, as they presently do.

Recommendation:

We recommend that a number of EDP specialists be employed to give courses at the NAS institutes

and to work with audit-trained personnel at computer installations to develop the required EDP auditing capability in the NAS. These specialists would also work with audit-trained personnel in developing appropriate EDP audit programs. Grade authorizations should be adjusted to make this possible.

Other specialists

The concept of management auditing calls for a broad spectrum of knowledge and experience which is not necessarily to be found in personnel whose background has been mainly or exclusively in accounting and auditing. Such areas as inventory management, material and production control, work scheduling, procurement, and maintenance, for example, could probably be better evaluated by specialists in those areas.

Recommendation:

We recommend that the NAS employ a number of specialists in areas outside accounting and auditing for the purpose of developing audit programs and techniques for these specialized areas and to assist, where required, with actual audit work.

AUDIT COVERAGE AND FREQUENCY

Major headquarters

The NAS, which comprises a headquarters office, six major field offices, and five branch offices, is charged with auditing the many installations and activities of the U.S. Navy and Marine Corps throughout the world.

Each field office develops its own annual plan in collaboration with headquarters (Policy and Programs Division) as well as a five-year plan concerning the relative amount of effort expected to be devoted to the broad categories of continuous-type audits, periodic-type audits, service-wide audits, and the like. Certain activities or installations are selected for audit on a three-year cycle, some on a two-year cycle, and still others on an annual basis. Audit findings based on these cycles indicate that considerable deficiencies exist in major activities or installations, and more frequent examinations seem to be warranted.

We noted that no audits are performed at the Assistant Secretary level.

Recommendations:

- (1) We recommend that an effort be made to increase the frequency of audits of major activities and installations.
- (2) We recommend that all headquarters levels, including the Assistant Secretary level, be subject to regular internal audits.
- (3) We recommend that consideration of an increase in the number of NAS audit personnel be given the highest priority to permit the fulfillment of Recommendations 1 and 2 above.

Extent of audit tests and investigations

The Naval Audit Service has emphasized management auditing for several years now and financial audits have been greatly curtailed, except when specially requested. There is no question that the management auditing concept offers

the greatest potential in terms of the economic benefit (typically, cost savings) that can be derived from the money invested in the audit function.

While the broad objectives of an audit are established in the yearly plan and guidance is provided by local management, the detailed implementation of these guidelines is usually determined by the individual field auditor, without the benefit, generally, of a written audit plan or audit program. As a result, extension of audit tests and investigations beyond what is necessary to establish the validity and degree of the findings is a frequent occurrence.

Recommendations:

- (1) We recommend that the NAS continue its emphasis on management-type auditing as offering the greatest potential benefit for the audit dollars spent.
- (2) We believe that audit tests and investigations should be limited to the point where audit findings clearly identify a significant problem and support a reasonable conclusion as to its scope and frequency.

Cost Reduction Program

The Department of Defense has instituted a formal Cost Reduction Program throughout all the military services and defense agencies. This program is designed to encourage all personnel in the Department to be cost-conscious and alert to potential opportunities for cost savings. The program requires that internal audit groups certify to the validity of the cost reduction submissions made by various

executive personnel in accordance with definitions and specifications issued by the Department of Defense. The NAS is required to review all cost reduction reports submitted within its area of activity and to audit in depth those reports involving savings in excess of \$100,000. These activities require a considerable expenditure of effort - approximately 7% of the total amount of direct audit time expended by the NAS.

We believe that the objectives of the Cost Reduction Program are sound and worthy of pursuit. We found, however, that NAS personnel are generally critical of the effort required of them in reviewing and validating submissions under this program. It is felt that many cost reductions which have been properly certified as valid according to the regulations issued by the DOD are not cost reductions in the true economic sense.

Recommendations:

- (1) We believe that what constitutes an acceptable "cost reduction" should be more clearly and specifically defined in the DOD regulations governing the Cost Reduction Program.
- (2) We recommend that submissions under the Cost Reduction Program be reviewed or audited on a selective basis, relying upon the professional judgment of NAS supervisory personnel. This would make a significant number of additional man-hours available for other audit assignments.

Staff requirements

Although the NAS had previously undertaken a long-range expansion program, recent budgetary restrictions have seriously curtailed this program and have in fact resulted in a reduction in the total audit staff.

The inadequate staffing of the NAS before the reductions caused by budgetary requirements will become even more pronounced. The enormous scope of the task and responsibilities confronting the NAS requires that an increase in professional staff be considered a matter of the highest priority as one of the basic remedies for inadequate audit coverage of major installations.

Recommendations:

- (1) We recommend that the long-range plan for expansion of the NAS be re-instituted as soon as possible.
- (2) We believe that the highest priority should be assigned to maintaining the NAS staff at full strength at all times.

AUDIT PROGRAMS, PROCEDURES, AND WORKPAPERS

Pre-audit planning

Staff at the headquarters level provide policy guidance with respect to the development and conduct of centralized training programs and general administrative, planning, and technical guidance to the area offices. Specific audit direction and participation in audit activities on the part of the headquarters-level staff are quite limited.

Some locations showed evidence of some use of pre-audit surveys or plans. In those cases observed, however, the degree of such planning was minimal. Although executive personnel of the NAS point out that the familiarity of their staff with the activities being audited obviates the need

for detailed pre-audit planning in connection with continuous audits and even some periodic audits, this argument is not supported by the large amount of man-hours expended in such audits - an amount often far in excess of the original budgeted man-hours.

Recommendation:

We recommend that pre-audit planning be refined and expanded to include a detailed statement of the objectives to be achieved, the budgeted man-hours, the nature of the manpower required, and the areas to be audited. There should also be a review and evaluation of the statements of objectives and procedures followed.

Management of man-hours

Although forms are prepared prior to the commencement of an audit to show total budgeted man-hours for the assignment, this figure usually has little significance for the audit personnel. The estimates of man-hours included in these forms are based on similar audits previously performed or on educated guesses.

Man-hour budgets are not based upon detailed audit steps such as would be included in a predesigned audit program. Without such a predesigned audit program, the objectives or goals of the audit are nebulous. As a result, the field auditor expands his audit as he goes along, searching for audit findings wherever he finds interesting or promising leads. Thus, the time for an audit originally budgeted for 1,000 man-hours can reach 3,000 or 4,000 man-hours before completion.

It was difficult for us to determine the degree of supervisory involvement, if any, in the planning, performance, and review of audits.

Recommendations:

To improve the management of man-hours, we recommend that the following steps be taken:

- (1) Time budgets should be based upon a predesigned audit program.
- (2) The objectives of the audit should be clearly specified to the field auditor.
- (3) Field auditors should be required to explain significant variances from original man-hour budgets.
- (4) There should be greater evidence of involvement on the part of supervisors in the planning, performance, and review of audits.

Review teams

Organizations operating over a broad geographic area under what is presumed to be a uniform and common set of rules have found it desirable to periodically test the extent to which these rules are adhered to in their widely dispersed activities. They have also recognized the value of opportunities for the exchange of experience among the supervisors of their various local offices.

Recommendation:

We recommend that audit review teams consisting of competent, experienced supervisors from several field locations be established to visit other locations to review workpapers, audit reports,

audit programs, documentation of findings, audit techniques employed, time required, etc.

Statistical sampling

The NAS is not taking sufficient advantage of the modern tools available to it for testing and other audit procedures. Although the Naval Audit Manual has an elaborate section dealing with statistical sampling, use of this technique throughout the Naval Audit Service is negligible. The course in statistical sampling offered by the Service apparently has not resulted in a sufficient degree of acceptance or understanding of the technique to lead to its general utilization. The method of testing generally used in the Naval Audit Service is based upon random selection, manually performed.

Recommendation:

We believe that the NAS should enforce the use of statistical sampling as an audit tool to reduce the time required on many audits and to make available, as a by-product, additional man-hours for other audit assignments.

Standard audit programs

Detailed audit programs are seldom specifically prepared or used for one particular audit. The NAS has 32 standard audit programs designed for specific applications. These uniform audit programs, each applicable to a specific type of audit, generally are used by the field auditor merely as a guide. He may elect to perform some of the audit steps listed or even only a part of one of them. In short, he has virtually

complete latitude in choosing steps that seem to him appropriate and desirable as his work progresses.

The field auditor will sometimes write the audit steps performed on a worksheet but will not show the source of the documents used for verification or the basis for the selection of the audit sample to be tested.

Recommendations:

We recommend that the following steps be taken to improve the use of standard audit programs:

- (1) Standard audit programs should be prepared for specific applications, as is contemplated by those programs now available. These programs, however, should be supplemented with a list of audit steps specifically applicable to the location being audited. The supervisor designing the audit program with the field auditor can check off the specific audit steps that must be performed in the field, and at the same time establish an appropriate man-hour budget for each step.
- (2) On completing an audit step, the field auditor should be required to sign off accordingly on the audit program, indicating the date of completion.
- (3) Deviations from the prescribed audit program should be required to be explained in writing in the workpapers and to be approved by the supervisor.

Workpaper preparation

Workpapers reviewed by us included extensive documentation supporting the findings and conclusions. However, there was little evidence of the criteria used for determining the sample selection. In most instances, it was difficult to reach a conclusion as to whether the audit procedures performed

were appropriate to the circumstances or satisfied the audit objective. We found many instances of information being copied into the workpapers which was not subsequently used in any of the audit procedures performed. Copies of numerous memoranda, letters, notices, and other printed matter are also mounted on worksheets and included in the workpaper folder without any reference to a specific procedure, finding, or conclusion. Although the audit reports reach a conclusion, little effort is made to identify the basic causes of errors or deficiencies uncovered in an audit, assign an estimated dollar value to such errors or deficiencies, or pinpoint the responsibility for the errors or deficiencies. We found little adequate evidence of supervisory review of workpapers generated in the field by staff auditors. Although each NAS field office appears to be adequately staffed with supervisory personnel, their supervision seems to be limited generally to verbal instructions and conversational review.

Recommendation:

We believe that headquarters should establish policies to be followed by the entire NAS concerning the form and content of workpapers, including evidence of audit steps performed, findings, conclusions, and subsequent review.

REPORTS

Timeliness

The review and approval procedures applied to reports prior to their release are quite cumbersome. The final draft

of each report must be submitted to the Review and Analysis Division at headquarters for review before it can be distributed outside the NAS. If the area audit office receives no comments from headquarters within a five-day period, it may release the report within the Navy Department. An additional 60 days must elapse between the time the reports are distributed within the Navy Department and the time they may be distributed to the Office of the Secretary of Defense. This additional 60-day delay is considered necessary by the Navy Department in order to give those Navy personnel who receive a report an opportunity to become thoroughly familiar with its contents before they are subjected to inquiries from representatives of the OSD.

In certain area audit offices the military director edits each draft report before it is sent to headquarters, though we did not find this to be a general practice. This procedure can be instituted by each area office director if he so chooses.

We found many examples of extensive delays between the time an audit was started and the time the audit report was issued. The timeliness of audit reports may be seriously affected by the unnecessarily long time required to complete an audit, the additional time required to write a draft of the report, the editing procedures followed at the area audit office and subsequently at NAS headquarters, and, finally, the additional 60-day delay between distribution within the Navy Department and distribution to the OSD. Typically, many months elapse before a final report is properly circulated.

Recommendations:

We believe that proper pre-audit planning, an appropriate audit program and time budget, and the proper staffing of an audit can substantially accelerate the performance of the audit and minimize the time lapse between the commencement of a pre-audit plan and the rendering of the final report. In addition, we recommend that the following steps be taken to improve the timeliness, and hence the value, of audit reports:

- (1) Criteria should be established to limit the number of reports that must be cleared through headquarters.
- (2) Built-in time delays before a report may be released for broad distribution should be eliminated.

Follow-up

We found that the implementation of suggestions and recommendations made in audit reports is generally left to the activity manager, without any required follow-up by NAS personnel.

Recommendation:

We believe that a definite procedure should be established for reviewing the implementation of suggestions and recommendations made in audit reports within a specified period (e.g., six months) after a report has been distributed.

General

There appears to be adequate distribution of reports to all parties interested in a particular audit, including the Assistant Secretary of the Navy (Financial Management). Classified reports receive more limited treatment and do not appear on the NAS quarterly list of reports.

We found no direct evidence of over editing or "cleansing" of reports but suggest that the review procedures in effect could lead to such abuses.

As far as we could determine, all major audit findings are included in printed reports and are summarized in a quarterly digest. The report editing and review process described earlier may, however, inject an element of dilution of both objectivity and independence, in addition to the substantial delay incurred before a report is finally released.

The present organizational structure does not, of itself, hinder the ability to achieve prompt and effective action in issuing reports. We do think that the present organizational structure could place constraints upon the implementation of action relating to major findings in areas outside the direct lines of authority of the Assistant Secretary of the Navy (Financial Management).

We found that audit reports generally are professionally prepared and render a valuable service. If properly implemented, they can result in substantial dollar savings to the Navy. The success of their implementation determines their effectiveness.

EDP AUDITING

Our comments regarding the auditing of EDP applications and the use of EDP equipment for auditing purposes are included elsewhere in this report, under "Personnel and training."

A report dealing exclusively with the subject of EDP auditing in the Department of Defense is being submitted separately.

CIVILIAN ADVISORS

The review and evaluation performed by this subcommittee and described in this report suggest the need for outside civilian advisors of high qualifications from industry and the professions to review the activities of the Auditor General and the NAS and to make recommendations for changes in procedures, methods, or techniques, as deemed desirable.

Recommendation:

We recommend that at least two highly qualified, knowledgeable individuals from industry and the professions be appointed to serve on a voluntary basis as advisors to the Secretary of the Navy and the Auditor General on internal auditing and related policies and practices.

UNITED STATES NAVAL AUDIT SERVICE
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Mr. James Woodruff, Special Assistant to the Secretary
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Capt. W. H. Shockey, Commanding Officer

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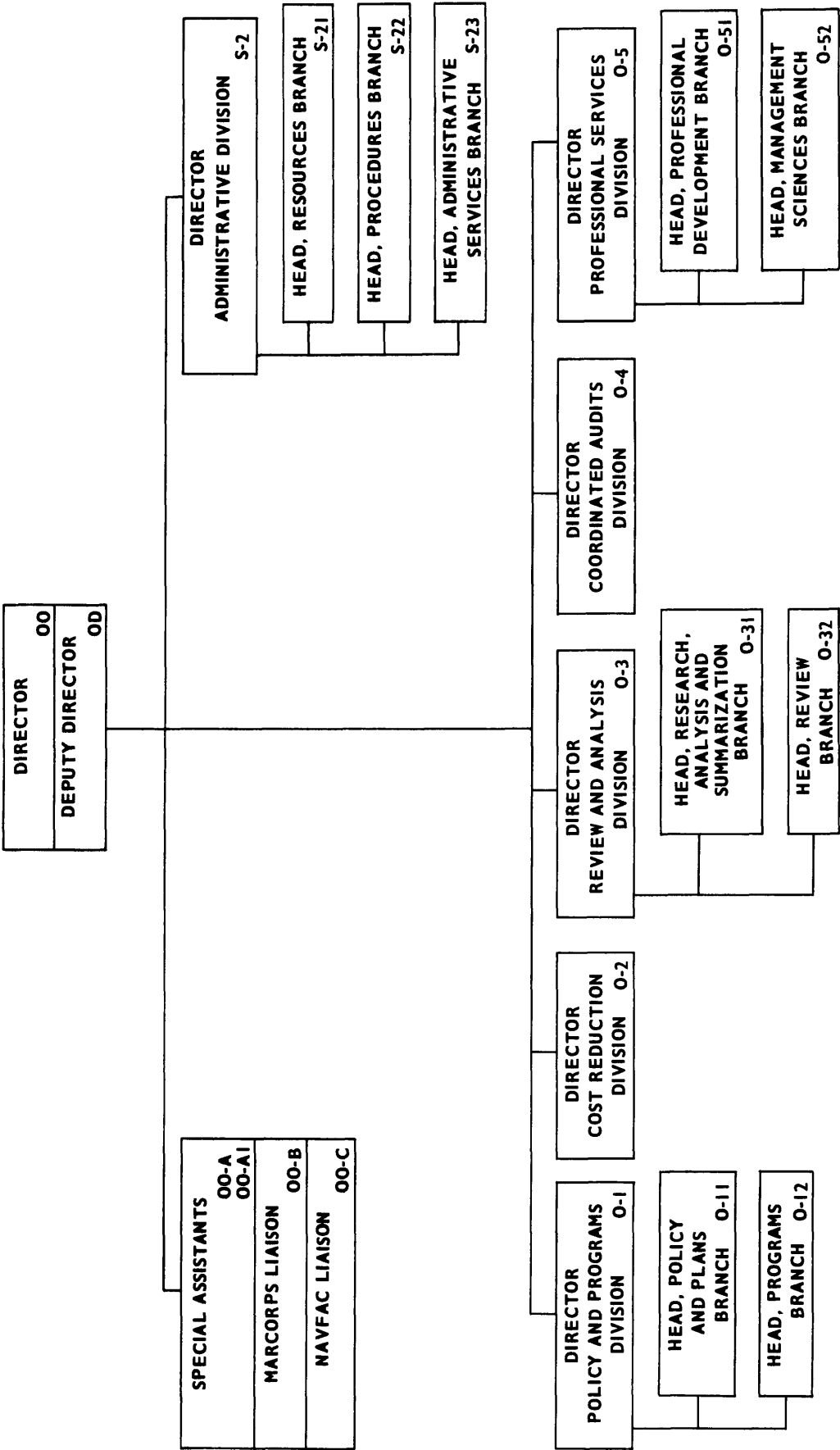
Naval Supply Center, San Diego, California

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Mr. James Seeley, Deputy Director, Data Processing

Division

HEADQUARTERS, NAVAL AUDIT SERVICE

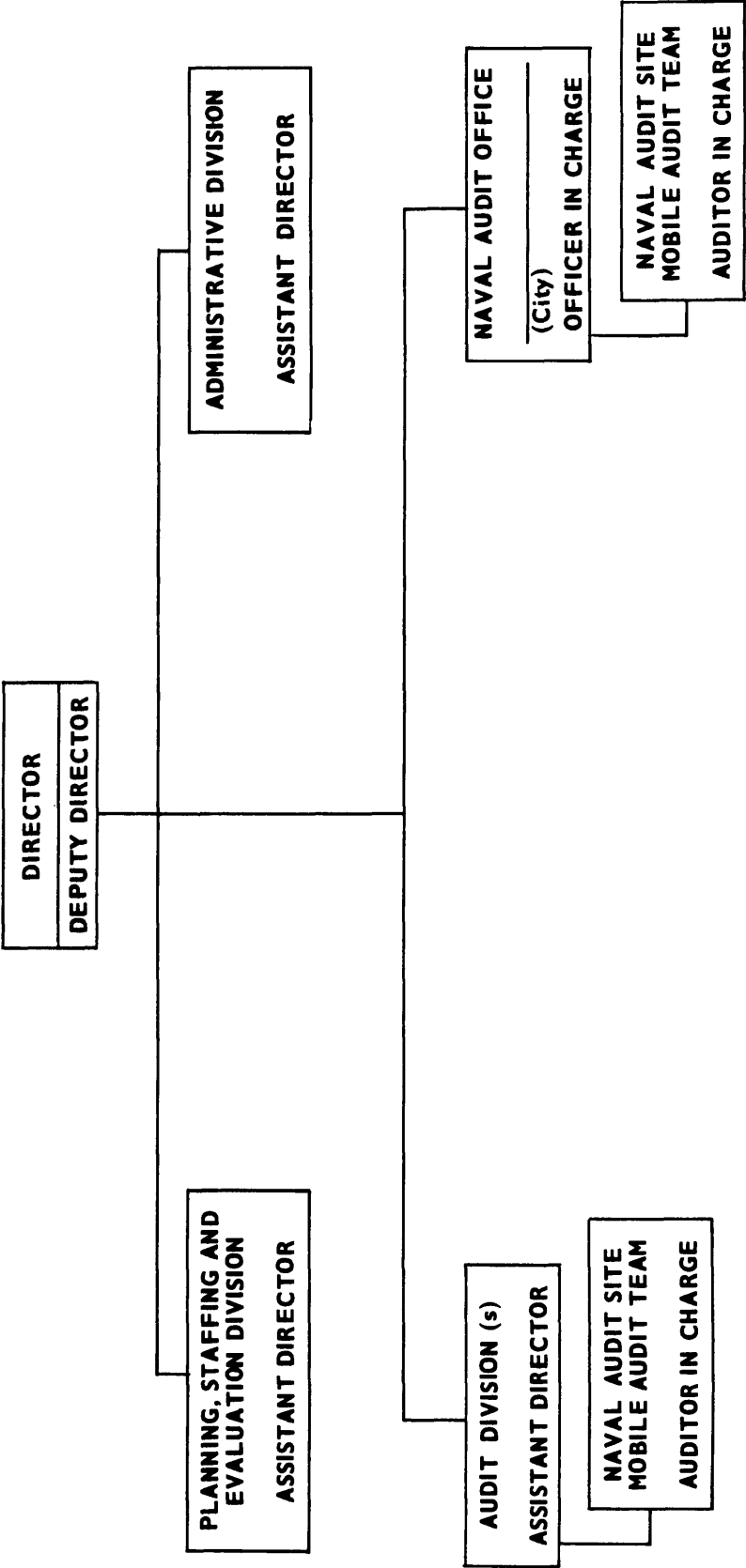


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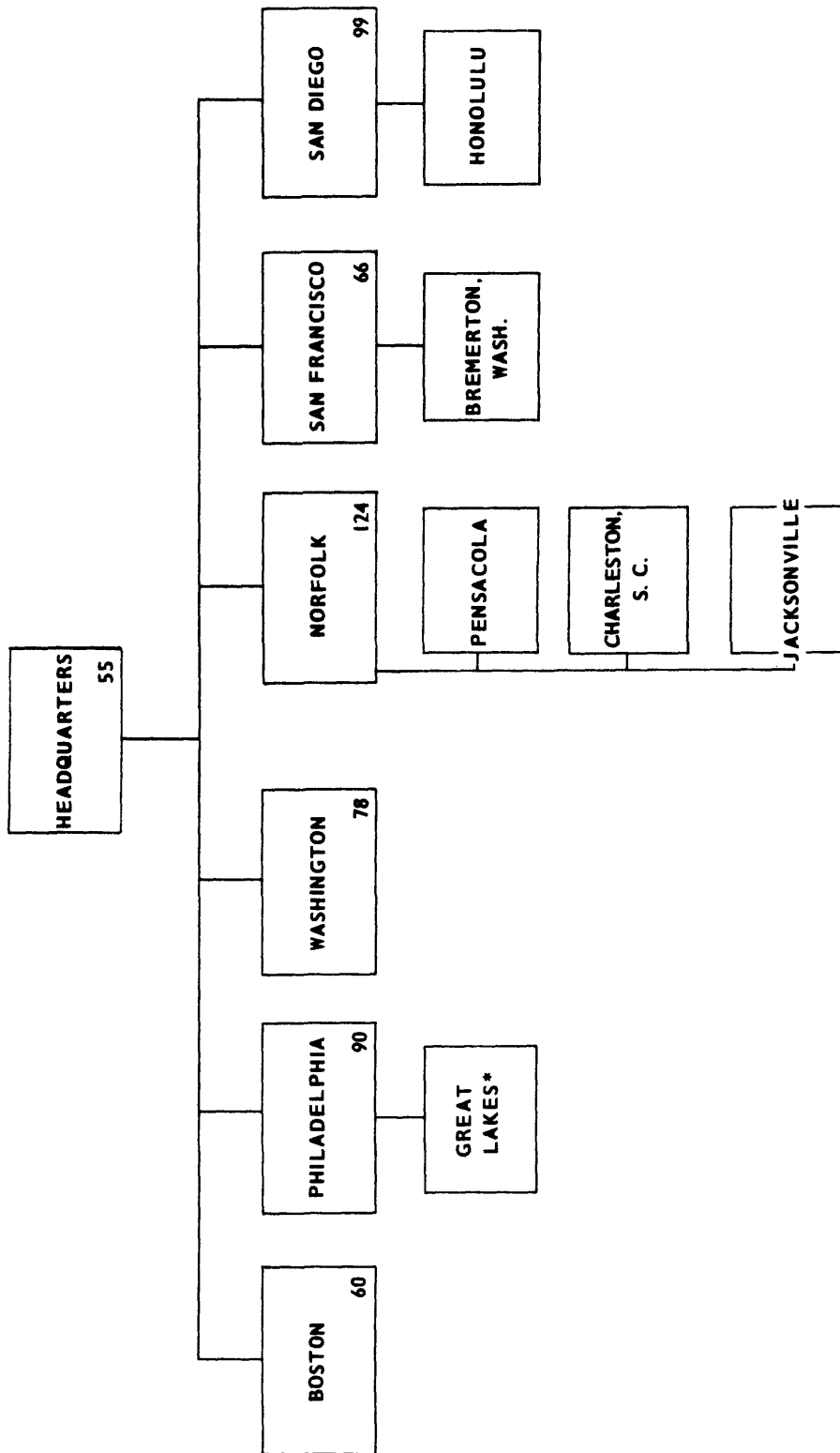
APPROVED: E. K. AUERBACH
DIRECTOR, NAVAL AUDIT SERVICE

STANDARD ORGANIZATION NAVAL AREA AUDIT SERVICES

NAVAL AREA AUDIT SERVICE _____ (City)



NAVAL AUDIT SERVICE



* To be changed to resident auditor

4/30/70

AIR FORCE

REPORT OF THE
U. S. AIR FORCE SUBCOMMITTEE

AICPA ADVISORY COMMITTEE
TO
BLUE RIBBON DEFENSE PANEL

MAY 1970

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SUMMARY

TASK DESCRIPTION

The U.S. Air Force Subcommittee of the AICPA Advisory Committee to the Blue Ribbon Defense Panel was organized to review and evaluate the principal policies, plans, and procedures relating to internal audit functions within the Department of the Air Force, including:

- (1) The organizational structure.
- (2) Audit relationships within and external to the Department of Defense (DOD).
- (3) Personnel management.
- (4) The nature and extent of audit coverage and the adequacy of auditing procedures.
- (5) The quality, timeliness, and usefulness of audit reports, and implementation of audit recommendations.

SCOPE OF REVIEW

We visited the headquarters of the Auditor General at Norton Air Force Base, California, the headquarters of the three regions in the United States and of the region in Europe, and the headquarters of each of the three divisions in the United States. We also visited fourteen Auditor General Resident Offices (AGROs) in the United States and two AGROs in Europe. Our review consisted of discussions with management personnel (Exhibit 1) and internal audit personnel, and the reading of a limited but

representative number of audit reports, procedure manuals, and audit workpaper files. We also had discussions with management personnel of the Defense Division of the General Accounting Office.

Because of the magnitude of the Air Force's operations and the limited amount of time available to our subcommittee, our study was necessarily broad in scope. Nevertheless, we believe that our review was sufficient to reasonably support the findings and recommendations described in this report.

GENERAL EVALUATION

The Auditor General provides reasonably effective internal auditing services for the Department of the Air Force. In our opinion, however, these services could be made even more effective, particularly with respect to the location of the Auditor General's headquarters, the independence of the internal audit function, the organization of the internal audit groups, the location of supervisory personnel, the timeliness of audit reports, the nature of the auditing techniques employed, and the manner in which audit personnel are utilized.

We were impressed with the clarity of summary audit reports, but we were not in a position to evaluate the substance of the matters dealt with in those reports. Generally, the internal audit personnel appeared to be of high quality and interested in their work.

The cooperation we received from members of the Auditor General's organization and other Air Force personnel was of great assistance to us, and we express our appreciation to them.

RECOMMENDATIONS See
page

Organization

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| (1) The Auditor General should be a civilian. | 9 |
| (2) The Auditor General should report directly to the Secretary of the Air Force, the Undersecretary, or an appropriate Assistant Secretary. | 10 |
| (3) The Auditor General and his headquarters staff should be located in the Washington, D.C. area. | 10 |
| (4) Internal auditors should be organized on the basis of large mobile groups within each region. | 12 |
| (5) Supervisors should be stationed at selected principal locations (within each region) of the mobile groups. | 13 |
| (6) Internal audit personnel should be civilians except for certain junior officers who become available under the ROTC program. | 15 |
| (7) Personnel engaged in internal review activities should be separated from the internal audit staff and should report to local commanders. | 16 |

Coordination with other audit and investigative agencies

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|---|----|
| (8) A more effective method of coordination should be established by the Deputy Comptroller for Internal Audit in his requests for "assist" audits. | 16 |
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Personnel and training

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| (9) Training programs should include instruction and test cases on audit techniques, including the preparation of audit workpapers. | 17 |
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(10) Specialists should be included in the Auditor General's organization, especially with respect to electronic data processing and related audit capabilities.	18

Audit coverage and frequency

(11) The Air Staff and activities at a comparable level should be audited by the Auditor General.	19
(12) Audit coverage should not extend beyond the point at which findings are sufficient to identify significant problems and to support reasonable conclusions with respect to their causes and seriousness.	20
(13) The frequency of required recurring audit activities should be evaluated.	20
(14) Guidelines of the Cost Reduction Program should be clarified and improved to permit savings to be determined with much greater reliability.	21
(15) Locally scheduled ("initiative") audits should be centrally coordinated.	22

Audit programs, procedures, and workpapers

(16) Supervisors should spend more time visiting AGROs and should be more involved in the planning, performance, and review of audit work.	22
(17) Management of audit man-hours should be improved.	24
(18) Audit review teams should be established to review, periodically, selected audit reports and workpapers.	24
(19) Statistical sampling techniques should be used for all appropriate audit work.	26
(20) Standard (modular-type) audit programs should be developed and used for common auditing problems.	26

- (21) A policy and related procedures for the form, content, and review of audit workpapers should be established. 27

Reports

- (22) Summary audit reports should be rendered promptly upon completion of field work, and the practice of including a statement of management concurrence (or non-concurrence) in such reports should be discontinued. 28
- (23) Internal auditors should follow-up on a timely and systematic basis the implementation of audit findings and recommendations. 29
- (24) Management should be required to respond formally to findings and recommendations in audit reports issued locally. 29

Civilian advisors

- (25) An advisory committee on internal auditing should be established. 30

DISCUSSION OF FINDINGS AND RECOMMENDATIONS

ORGANIZATION

The Auditor General's organization (Exhibit 2) comprises the headquarters staff (at Norton Air Force Base, California), three line divisions (Logistics Systems Division, Acquisition Systems Division, and Service-Wide Systems Division) and four line regions (Europe; and Eastern, Central, and Western United States, the latter including Southeast Asia). To maintain liaison with Air Force Headquarters, the Associate Auditor General has his office in the Pentagon.

The headquarters staff has four groups - Plans, Operations, Professional Services, and Support Services - and a Management Analysis office. The principal elements and functions of the groups are as follows:

Plans Group - develops and monitors audit plans for centrally directed audits and collects and distributes ideas for locally scheduled audits. Approval of this group is required to schedule centrally directed audits, but the group does not participate in the development of audit programs.

Operations Group - is responsible for staff surveillance of the execution of centrally directed audits. This group reviews and appraises audit programs and reports.

Professional Services Group - is concerned primarily with the development of auditing techniques and the training of auditors.

Support Services Group - is responsible for administrative and support activities.

The three line divisions which supervise field auditing work that follows functional lines are as follows:

Logistics Systems Division - audits activities of the Air Force Logistics Command.

Acquisition Systems Division - audits activities involving the acquisition of systems by the Air Force Systems Command.

Service-Wide Systems Division - provides assistance on technical auditing matters to other line divisions and regions; also directly supervises audits of Air Force-wide activities such as accounting and finance, personnel, and data systems design.

The supervision of all other field audit work is organized by geographical regions. Supervisors, each of whom is responsible for audit work at approximately six installations, are located in the headquarters of each region.

Headquarters of the line regions and divisions are at the following locations:

Regions

Europe - Rhein-Main Air Base, Germany

All other - Norton Air Force Base, California

Divisions

Logistics Systems Division - Wright-Patterson Air
Force Base, Ohio

Systems Acquisition Division - Andrews Air Force
Base, Maryland

Service-Wide Systems Division - Norton Air Force
Base, California

There are approximately 1,300 people in the Auditor General's organization, of whom 57% are military personnel. At the headquarters level, approximately two of every three supervisors (designated "Chief") are military personnel.

Underlying the structure of the Auditor General's organization is a theory that auditing is most effective when auditors are resident at the activities they audit. With resident auditors at approximately 140 installations, the typical staff size is five or six auditors, although there are as many as 25 or more auditors at some locations.

In recent years, the emphasis has shifted from compliance, custodial, and financial-type audits to management audits in which the auditor assists management by anticipating problems and recommending preventive actions. This shift in emphasis has had a concomitant effect of broadening areas of audit interest.

The Auditor General

Our subcommittee has concluded that the position of Auditor General should be changed from a military to a civilian position. It should have sufficient stature and prestige to represent an attractive career opportunity for a highly qualified

individual, thus insuring a long period of service and continuity of audit policy and direction. It should not be lower than GS-18. In terms of qualifications, we have in mind someone who has had considerable background (not less than ten years) in the fields of auditing and financial management, with experience in public accounting and in governmental or large industrial organizations. He should have a broad knowledge of data processing and its application to auditing, and he should have demonstrated abilities in managing and organizing.

Recommendation:

The Auditor General should be a civilian;
his position should be classified not lower
than GS-18.

To be an effective management tool, internal auditing should provide for independent and objective audits and independent evaluations of policies and procedures relating to the principal military support functions, such as research and engineering, procurement, finance, personnel, and supply management. The effectiveness of this management tool is diminished or diluted by anything, including military rank, that inhibits or tends to inhibit that quality of independence. Under the present organization, the Auditor General, a Major General, reports to the Comptroller of the Air Force, a Lieutenant General.

Recommendation:

The Auditor General should report directly to the Secretary of the Air Force, the Undersecretary, or an appropriate Assistant Secretary.

Internal auditing is an important element of Air Force administration. The principal administrative offices of the Air Force and the Office of the Secretary of Defense are located in the Washington, D.C. area; the headquarters of the Auditor General are located at Norton Air Force Base, California. Because of the distance between these locations - except to the extent that services of the Associate Auditor General and his staff are used - the Secretariat of the Air Force and the Air Staff do not have the advantages and benefits that would accrue from close proximity of the Auditor General for purposes of day-to-day consultation and advice. The Auditor General and his staff are not in a position to consider daily management problems as they are encountered in Washington.

Recommendation:

The Auditor General and his headquarters staff should be located in the Washington, D.C. area. This should permit elimination of the position of Associate Auditor General.

Mobile groups of internal auditors

Internal auditors in the Air Force, unlike their

counterparts in the Navy and Army, are stationed at each significant base or installation as resident auditors. We understand that this is done to reduce travel time and expense, to provide "visibility" of the auditors to those whose activities are being audited, and to give the auditors a better understanding of base activities and thus improve the utilization of their initiative time. These points, particularly the last, have merit. However, we believe that the existing policy governing the location of internal audit personnel has a number of disadvantages which outweigh the advantages.

The principal disadvantage, in our view, is the small size of the groups at each location which results in inadequate staff training, unfavorable impact of transfers, retirements, and resignations, and lack of supervisory opportunities. Formal staff training which is ordinarily most effective when presented to groups with comparable backgrounds and experience, is not feasible in small groups. At some locations, it is not unusual to find only one auditor who has been there for more than a year. The resident auditor in a small AGRO must personally perform many auditing tasks because he represents a significant proportion of the available manpower; this, of course, limits his opportunities to use or develop administrative and supervisory skills.

Organizing internal auditors into mobile groups within each of the present regions would minimize such problems. Since the size of the proposed mobile groups would be considerably larger than the present typical AGRO, there would be available

within each group a sufficient number of auditors with similar backgrounds and experience to facilitate formal staff training. Central scheduling of audit work on the basis of mobile groups would result in improved coordination.

The impact of staff turnover on such large mobile groups would be considerably less severe than the impact on small groups. Turnover caused by transfers of personnel would, in fact, be lessened because the reason for such transfers would be substantially eliminated (i.e., the same objective would be served as effectively by rotation within the mobile groups of audit assignments by location, and of the participating supervisory and subordinate personnel).

Since there would be more supervisory positions in large mobile groups, promotional opportunities would be enhanced. This, too, would tend to lessen staff turnover.

Recommendation:

Internal auditors should be organized on the basis of large mobile groups within each region.

Supervisors

Supervisors in the geographical regions are stationed either at Rhein-Main, Germany (European Region) or at Norton Air Force Base, California (Eastern, Central and Western Regions). The travel time between Norton Air Force Base and locations in the three U.S. regions (particularly in the Far East which is part of the Western Region) is substantial.

In most cases, supervisory responsibility extends over distances of several thousand miles. This has the effect of increasing travel expense and limiting the frequency of supervisory visits to AGROs. Supervisory personnel spend relatively little time in the field; their principal contact with AGRO personnel is by telephone. At the AGROs we visited in the Central Region, for example, no one other than the base commander had met supervisory personnel from Norton Air Force Base. Supervisory personnel seldom review workpapers; their reviews of auditing procedures are limited largely to oral inquiries, which are also often made by telephone. Audit reports are usually reviewed prior to release by supervisors at Norton rather than in the field.

If supervisors were stationed at principal locations within their supervisory jurisdiction, they would be available for longer visits with resident auditors and would be in a position to observe and review the conduct and status of audit work as it progresses. Also, resident auditors and others would have the benefit of the supervisor's knowledge and experience on a continuing basis.

Recommendation:

Supervisors should be stationed at selected principal locations (within each region) of the mobile groups.

Civilian staff

The nature of the military, and especially the hierarchical structure of military rank, tends to inhibit the independence of military internal auditors reporting on activities headed by officers of higher rank. At many AGROs, the resident auditor is a Major or Lieutenant Colonel, and he is charged with auditing the activities headed by an officer of higher rank. Our observations during interviews with base commanders and resident auditors have led us to conclude that a military auditor would have to have an exceptionally strong character to pursue to a higher command level a disagreement with a higher-ranking officer, particularly over a point on which there is merit in both views.

A majority of the supervisory personnel are presently drawn from military ranks. From the standpoint of recruiting and retaining staff, this limits the attractiveness to a civilian of an internal auditing career in the Air Force. The present freeze on the hiring of civilian personnel, which has been in effect for approximately three years, compounds this problem. If the freeze continues, we foresee an Auditor General's organization with relatively few civilian personnel. The freeze could also cause serious long-term damage by making long-range personnel planning impossible.

In our opinion, the Air Force should establish the objective of having all supervisory and senior auditor positions ultimately available only to civilians in order to assure them of maximum career opportunities. Junior officers who became available under the ROTC program and who may return to civilian

status after their military service, should be included as a part of this objective. However, such junior officers should not be included in the general promotion schedule for military officers.

Recommendation:

Internal audit personnel should be civilians, except for those junior officers who become available under the ROTC program and who may return to civilian status upon completion of their military service.

Internal review

One of the benefits stressed by the Auditor General in his emphasis on management audits is the ability to provide local managements with an "internal review" capability to help them improve their local operations. The internal auditors of the Air Force perform not only the functions normally associated with the internal auditor, but also those of the internal reviewer. Our earlier recommendation for the formation of mobile groups of internal auditors does not propose the elimination of this internal review capability; rather, we would propose that internal review functions be identified as such and be assigned to personnel stationed at base installations. Since the purpose of internal review is to assist local management, those engaged in this activity should report to local commanders. These internal review personnel would not be engaged in internal auditing.

Recommendation:

Personnel engaged in internal review activities should be separated from the internal audit staff and should report to local commanders.

COORDINATION WITH OTHER AUDIT AND
INVESTIGATIVE AGENCIES

Assistant Secretary of Defense Comptroller

The Deputy Comptroller for Internal Audit, Office of the Assistant Secretary of Defense (Comptroller), issues requests to the Air Force Auditor General for "assist" audits. Such requests usually are not scheduled or issued sufficiently in advance to be coordinated with the Auditor General's own audit plans and schedules. Frequently, current audit schedules of Air Force auditors are seriously disrupted as a result of such requests.

Recommendation:

A more effective method of coordination should be established by the Deputy Comptroller for Internal Audit in his requests for "assist" audits.

The Inspector General, Air Force

The investigative activities of The Inspector General and his staff are concerned primarily with such matters as operational readiness, morale, discipline, and the condition of physical facilities. We believe that the procedure for the exchange of all reports and schedules of visits (except surprise visits) between the Auditor General (AFAUDF) and The Inspector General (AFIDIB) substantially eliminates any duplication of effort.

General Accounting Office

We observed no significant duplication on the part of the General Accounting Office of the internal audit activities of the Air Force.

PERSONNEL AND TRAINING

Training programs

Because internal audit personnel are required to have education and/or experience in accounting or auditing, accounting and auditing techniques receive relatively little attention in training programs provided by the Auditor General's organization.

Most of the organization's training programs are concerned with providing internal auditors with an understanding of Air Force systems and procedures. This appears to reflect the theory that, with personnel who have a background in accounting and auditing, there is little need for formal training in "how to audit."

It has been our experience, however, that despite an extensive education in accounting, new auditors require considerable training in specific audit techniques. This is particularly true with respect to the preparation of audit workpapers.

Recommendation:

Training programs should include instruction and test cases on audit techniques, including the preparation of audit workpapers.

Use of specialists

In recent years the Auditor General has stressed the "management audit" approach, which requires an ability on the part of the internal auditor to make constructive suggestions on many different aspects of Air Force management. During the same period the Air Force has substantially increased its electronic data processing capabilities. If effective internal auditing services are to be provided in the future, the internal audit group must bring to its work a much greater variety of specialized skills and experience than it presently possesses. The necessary complement of specialized skills would be very difficult to achieve, in our opinion, under the existing requirement that all internal audit personnel have an accounting or auditing background. We believe that this requirement is unnecessarily restrictive.

A good example of the need for specialists is the current data communications audit being conducted at the DCIA's request, using Lindsey Air Station, Germany, as the audit control point. The objectives of this audit require data communications specialists as well as industrial engineers.

Recommendation:

Specialists should be included in the Auditor General's organization, especially with respect to electronic data processing and related audit capabilities.

AUDIT COVERAGE AND FREQUENCY

Air Staff

The Air Staff and other activities at a comparable level are not subject to audit at the present time. The Air Force Auditor General reports directly to the Comptroller of the Air Force, a member of the Air Staff. This, of course, effectively limits the ability of the Auditor General to audit activities at the Air Staff level.

Recommendation:

The Air Staff and activities at a comparable level should be audited by The Auditor General. (Implementation of our earlier recommendation, concerning the level at which the Auditor General should report, would be a necessary prerequisite to the implementation of this recommendation.)

Scope and extent of audit coverage

Identifying major problems is one of the principal functions of internal auditing. In the course of this identification process, likely solutions are usually developed. The auditor can and does propose such solutions as recommendations; management, however, is responsible for their adoption or implementation.

Formerly, internal auditors at every location participated in centrally directed audits, presumably to convince Air Force management of the extent of the problems reported. In recent years, the number of locations audited for a particular purpose has been reduced significantly, but a typical centrally directed audit still often involves as many as thirty locations.

If the purpose of such audits is merely to identify major problems and recommend likely solutions, we believe that there could be further reductions in the number of locations selected for centrally directed audits. Statistical sampling techniques would be useful in determining the number of locations at which a potential problem should be investigated.

We noted that excessive work was performed on certain engagements in which the existence and nature of a problem were obvious early in the audit, and likely solutions were similarly apparent. In one engagement that we reviewed, the excessive work performed after the point at which both the problem and a likely solution had been identified amounted to about 1,000 man-hours.

Recommendation:

Audit coverage should not extend beyond the point at which findings are sufficient to identify significant problems and to support reasonable conclusions with respect to their causes and seriousness.

Audit frequency

During our study we were informed on several occasions that a significant number of man-hours are spent in routine work such as quarterly cash counts. These counts and similar recurring audit activities are required by either Congress, the Department of Defense, the Air Staff, or others.

Recommendation:

The frequency of required recurring audit activities should be evaluated.

Cost Reduction Program

A significant number of man-hours (about 105,000 a year) is allocated to the validation of auditing of cost reduction data submitted under the Cost Reduction Program. Our study revealed significant dissatisfaction on the part of Air Force audit personnel as to the usefulness of this work, and they were generally critical of it.

Recommendation:

If the Cost Reduction Program is to be retained, the guidelines should be clarified and improved to enable savings to be determined with much greater reliability, thus reducing the need for validation by internal audit personnel.

Coordination of locally scheduled audits

We understand that approximately 50% of AGRO field audit time is spent on locally scheduled ("initiative") audits. Under present procedures, only the AGRO's supervisor at Norton (who supervises several other AGROs) is notified of plans for such locally scheduled audits, and these notifications cover only the forthcoming month or two. We believe that these procedures may lead to duplication of audit effort. Projects or problems selected for study at a particular location should be coordinated with studies at other locations because of the possibility that similar problems may also exist there, in which event the problem should probably be considered on an Air Force-wide basis.

Recommendation:

A staff group at headquarters should coordinate all proposals for and results of locally scheduled audits.

AUDIT PROGRAMS, PROCEDURES, AND WORKPAPERS

Audit planning and supervision

Each supervisor is responsible for approximately five AGROs, and he is expected to visit each one approximately twice a year. The average duration of these visits is approximately one week. We believe that this schedule is not adequate if supervisors are to participate on a timely basis in the planning of audits, and properly supervise the AGROs.

Under the present policy, supervisors do not review audit workpapers; this is considered to be the responsibility of the resident auditor. We believe, however, that significant benefits are lost when supervisors do not review workpapers. Obvious benefits include the sharing with AGRO personnel of the supervisor's thoughts and recommendations on audit techniques, greater uniformity of audit documentation, and improved form and content of audit workpapers.

Recommendation:

Supervisors should spend more time at AGROs and should be more involved in the planning, performance, and review of audit work.

Management of audit man-hours

We observed that budgeting of time for proposed audit assignments is haphazard. Estimates of man-hours are determined

mainly on the basis of intuition and the amount of time spent on similar engagements in the past - which, of course, were "budgeted" in the same manner. No attempt is made to budget man-hours on the basis of detailed audit steps. In most cases, the man-hour budget is fixed before the preparation of the audit program but after the approval of the audit proposal. There is no apparent attempt to involve AGRO personnel in the budgeting of their work or to have field audit personnel concur in the total number of man-hours planned.

Relatively little attention appears to be given to the total amount of time (man-hours) expended on a particular audit; all the attention appears to be focused on the due dates ("milestones"). In many instances, total man-hours expended were as much as twice the amount projected, and there was no indication of review or explanation of the increase. Our request to headquarters for information on total man-hours spent on a particular audit required the accumulation of monthly totals, indicating that this information is not readily available for centrally directed audits.

There is a timekeeping system programmed for the B-3500 computer that produces many levels of summary data. The output of that system, however, does not appear to be used to manage audit man-hours. We suggest that this computer program be modified to highlight such matters as excessive man-hours worked, insufficient man-hours reported in comparison with man-hours available, unusual amounts of indirect time, unusual amounts of direct time concentrated in specific functional areas, actual versus planned progress on audits (at present,

operations staff personnel attempt to develop this information manually, via the telephone), and functional areas that are not receiving attention.

Recommendation:

Upon completion of audit programs, audit man-hours should be planned with the assistance and concurrence of field personnel. Performance should be monitored on a timely basis during each audit; upon completion, audits should be analyzed for the effective and productive use of man-hours.

Audit review teams

Most large auditing organizations have found that personnel directly involved in audits are often too close to their own work to appraise its effectiveness objectively. Also, new or improved techniques may be developed by one group and not made available to others. For these and other reasons, such auditing organizations have formed "audit review teams" to review audit reports and workpapers. These teams usually include representatives from a number of locations and generally are composed of experienced supervisory personnel.

Recommendation:

Audit review teams should be established to review, periodically, selected audit reports and workpapers.

Statistical sampling

Although the Air Force has used statistical sampling in many of its areas of operation, the Auditor General's

organization is not at the present time using statistical sampling effectively as an audit technique.

In almost all of our discussions of statistical sampling with Auditor General personnel, there was general agreement that this is an excellent technique for determining sample sizes. However, the Auditor General personnel appear to be reluctant to use such techniques. This may result from a lack of training or a lack of knowledge about statistical sampling. Although statistical sampling expertise is available in the Air Force, we observed only one instance (at the Accounting and Finance Center in Denver) in which such expertise was utilized by the internal auditors. There is obviously a need for more training and development in this area. On March 27, 1970, we were informed by the Deputy Auditor General that "the plans under way when you were here to review our statistical sampling course have reached the action stage. . . . The training package for distribution to our AGROs is still in the wings. I hope to have it out and in use before the end of the year."

Personnel responsible for determining sample sizes for centrally directed audits indicated that such sample sizes represent their judgment of what is required in order for Air Force management to accept the audit findings. Usually these sample sizes were considerably larger than would have been required had statistical sampling been used. Our inquiries at various locations have led us to conclude that Air Force management would accept audit findings based on statistical sampling techniques as being more meaningful than those now presented. We also noted management interest in the fact that

findings might be communicated to management on a more timely basis if smaller but equally effective samples were used, and that the resultant savings in audit man-hours could facilitate extension of auditing effort to other important areas within the Air Force.

Recommendation:

Statistical sampling techniques should be used for all appropriate audit work.

Standard audit programs

We reviewed the programs used for a number of audits, both centrally directed and locally scheduled. These programs were largely tailored to the specific needs of the particular assignments. However, the development of such programs is time-consuming and to some degree results in duplication of effort on an Air Force-wide basis. Furthermore, we noted that centrally directed audit programs developed by personnel in the Service-Wide Systems Division were overly detailed and inhibited the initiative of the field auditors at the time of execution of the procedures. In many instances, the programs were inappropriate for either the type of installation being audited or the volume of transactions.

Recommendation:

Standard (modular-type) audit programs should be developed and used for common auditing problems. They should be flexible and allow for modifications in the field prior to commencement of the assignments.

Workpapers

A substantial portion of audit man-hours is used to accumulate in audit workpapers documentation of the work performed. We noted an absence of uniformity and many deficiencies in the form and content of workpapers, and evidence of varying degrees of review of workpapers by resident auditors at AGROs.

To improve the efficiency of audit work, the extent and nature of the documentation required in workpapers should be clearly established. This should include consideration of requirements for indexing, symbols indicating work performed, use of work programs in lieu of extensive analyses, retention of preliminary drafts of audit reports, and the nature and evidence of supervisory review.

Recommendation:

A policy and related procedures for the form, content, and review of audit workpapers should be established.

REPORTS

Timeliness of reporting and management concurrence

We noted many instances of long delays (five months or more) between the time field work was completed and the time summary audit reports were rendered. Such delay seems to result largely from cumbersome report review and concurrence procedures, such as the requirement that management responses be included as part of the report. Drafts of reports should

be reviewed with those whose activities are being reported upon, but such review should require only a relatively short time and should not act as a deterrent to prompt submission of reports to higher levels of management. Reports should not be delayed for formal management replies. We noted instances in which the auditors spent more man-hours in report preparation, review, and concurrence than in the actual audit work.

We observed also that the percentage of management concurrences to audit recommendations is extremely high. While non-concurrence with factual findings should be the exception rather than the rule, it is difficult to believe that internal auditors' recommendations could conform so closely to management's views. We see possibilities that recommendations that should be reported to higher management could be deleted in the process of obtaining such concurrences.

Recommendation:

Summary audit reports should be rendered promptly upon completion of the field work, and the practice of including a statement of management concurrence (or non-concurrence) in such reports should be discontinued. Subsequently, management should formally reply to report recommendations within a stipulated period of time.

Follow-up of recommendations

Summary audit reports presently include comments on management actions planned in response to the audit findings or recommendations. There is no procedure, however, under which the Auditor General later reviews the situation to determine what action has actually taken place.

Recommendation:

Internal auditors should follow-up on a timely and systematic basis the implementation of audit findings and recommendations.

Locally-issued reports

We understand that there is presently no requirement for a formal management response to reports issued locally by the AGROs. We believe that every person to whom an audit report is submitted should be required to respond to the report, indicating acceptance or rejection of the findings and recommendations and actions to be taken, if any. This will provide a record of the final results of every audit. In the event that an unsatisfactory reply is received, a decision may then be made to submit the report to a higher command level, if warranted.

Recommendation:

Management should be required to respond formally to findings and recommendations in audit reports issued locally.

CIVILIAN ADVISORS

We believe that the Auditor General would find useful the guidance of an independent outside group of knowledgeable persons. This could be accomplished by the establishment of an advisory committee composed of civilians from industry and professional firms. Members of the proposed committee would serve on a voluntary basis and would meet on scheduled dates periodically throughout the year. The

committee or its individual members would be available for consultation and advice on current developments in accounting and auditing and on all matters relating to internal auditing policies and practices.

We envision that the proposed committee might appropriately consider broad policy questions such as activities to be audited and the frequency of such audits, workpapers that should be prepared to document the work done, review of audit work and supervisory responsibilities, report review and concurrence procedures, and the like.

Recommendation:

An advisory committee on internal auditing should be established.

LOCATIONS VISITED AND PRINCIPAL PERSONS INTERVIEWED

DEPARTMENT OF DEFENSE, Washington, D. C.

Assistant Secretary of Defense (Comptroller) - Hon. Robert C. Moot
Director of Audit Policies, OASD (C) - Mr. Kenneth K. Kilgore
Mr. Maynard B. Woodbury, Associate

DEPARTMENT OF THE AIR FORCE, Washington, D. C. *PENTAGON*

✓ Assistant Secretary of the Air Force (Financial Management) -
Hon. Spencer J. Schedler
Principal Deputy Assistant Secretary - Mr. Robert D. Benson
Comptroller of the Air Force - Lieutenant General D. L. Crow
Deputy Inspector General - Major General Clyde Box

GENERAL ACCOUNTING OFFICE, Washington, D. C.

Deputy Director, Defense Division - Mr. Richard W. Gutman
Mr. J. H. Hammons, Associate
Mr. H. H. Rubin, Associate
Mr. J. K. Fasick, Associate
Mr. H. B. Bell, Associate

THE AUDITOR GENERAL HEADQUARTERS, Norton Air Force Base, California

The Auditor General - Major General George E. Brown
Deputy Auditor General - Mr. Trenton D. Boyd
Associate Auditor General (Washington, D. C.) - Mr. Orion T. Row
Headquarters staff:

Plans Group:

Chief - Lieutenant Colonel Joseph L. Ashbaker

Operations Group:

Chief - Mr. Wesley H. Reel

Professional Services Group:

Chief - Colonel George W. Burt

Support Services Group:

Chief - Colonel James L. Rouse

Management Analysis Office:

Chief - Colonel J. M. Moore

THE AUDITOR GENERAL LOGISTICS SYSTEMS DIVISION

Headquarters, Wright-Patterson Air Force Base, Ohio
Division Chief - Colonel Stanley L. Anderson

AGRO, Advanced Logistics Systems Division, Wright-Patterson Air Force Base, Ohio
Resident Auditor - Major F. T. Slayton

AGRO, Wright-Patterson Air Force Base, Ohio
Resident Auditor - Major V. E. Hairston
Base Commander - Brig. General C. O. Williams, Jr.

THE AUDITOR GENERAL ACQUISITION SYSTEMS DIVISION

Headquarters, Andrews Air Force Base, Maryland
Division Chief - Mr. John W. Boddie

AGRO, Aeronautical Systems Division, Wright-Patterson Air Force Base, Ohio
Resident Auditor - Mr. B. B. Miller
Commander, ASD - Major General Gossick
Comptroller, ASD - Colonel Collier

THE AUDITOR GENERAL SERVICE-WIDE SYSTEMS DIVISION

Headquarters, Norton Air Force Base, California
Deputy Division Chief - Mr. Louis Rozen

AGRO, Air Force Data System Design Center, Washington, D. C.
Resident Auditor - Colonel L. R. Orr

AGRO, Military Personnel Center, Randolph Air Force Base, Texas
Resident Auditor - Lieutenant Colonel R. L. Cournoyer
Commander - Colonel William M. Best

AGRO, Air Force Accounting and Finance Center, Colorado
Resident Auditor - Lt. Colonel Riley DeMasie
Commander - Brig. General Edwin Whitbrodt

THE AUDITOR GENERAL EUROPEAN REGION

Headquarters, Rhein-Main Air Base, Germany
Region Chief - Colonel George M. Hinckley

AGRO, Rhein-Main Air Base, Germany
Resident Auditor - Major P. Pedroff
Base Commander - Colonel F. L. Kimbrough

AGRO, Lindsey Air Station, Wiesbaden, Germany
Resident Auditor-Lieutenant Colonel C. Voith

Comptroller, USAFE Hdqrs. - Colonel L. J. Martin
Base Commander - Colonel R. G. McKittrick

THE AUDITOR GENERAL EASTERN REGION

Headquarters, Norton Air Force Base, California
Region Chief - Mr. Ivan S. Weaver

AGRO, Westover Air Force Base, Massachusetts
Resident Auditor - Mr. Frank Mossman
Deputy Base Commander - Colonel Amy
Comptroller - Lt. Colonel F. W. Volper

AGRO, McGuire Air Force Base, New Jersey
Resident Auditor - Major W. R. Horton

AGRO, Langley Air Force Base, Virginia
Resident Auditor - Lt. Colonel R. W. Stephenson, Jr.
Acting Comptroller - Major J. C. Bircher

THE AUDITOR GENERAL CENTRAL REGION

Headquarters, Norton Air Force Base, California
Region Chief - Mr. George H. Spaulding

AGRO, Bergstrom Air Force Base, Texas
Resident Auditor - Captain E. M. Burns
Commander, 12th Air Force - General Robbins
Assistant Commander, 12th Air Force - General Buckner
Wing Commander - General Cross
Comptroller, 12th Air Force - Major Farthing
Base Comptroller - Colonel Wells

AGRO, Barksdale Air Force Base, Louisiana
Resident Auditor - Lt. Colonel W. L. Lively
Commander, 8th Air Force - Lt. General Jones
Wing Commander - Colonel Martin
Base Commander - Colonel Marvin Anding
Base Comptroller - Lt. Colonel Gerald Rambo

THE AUDITOR GENERAL WESTERN REGION

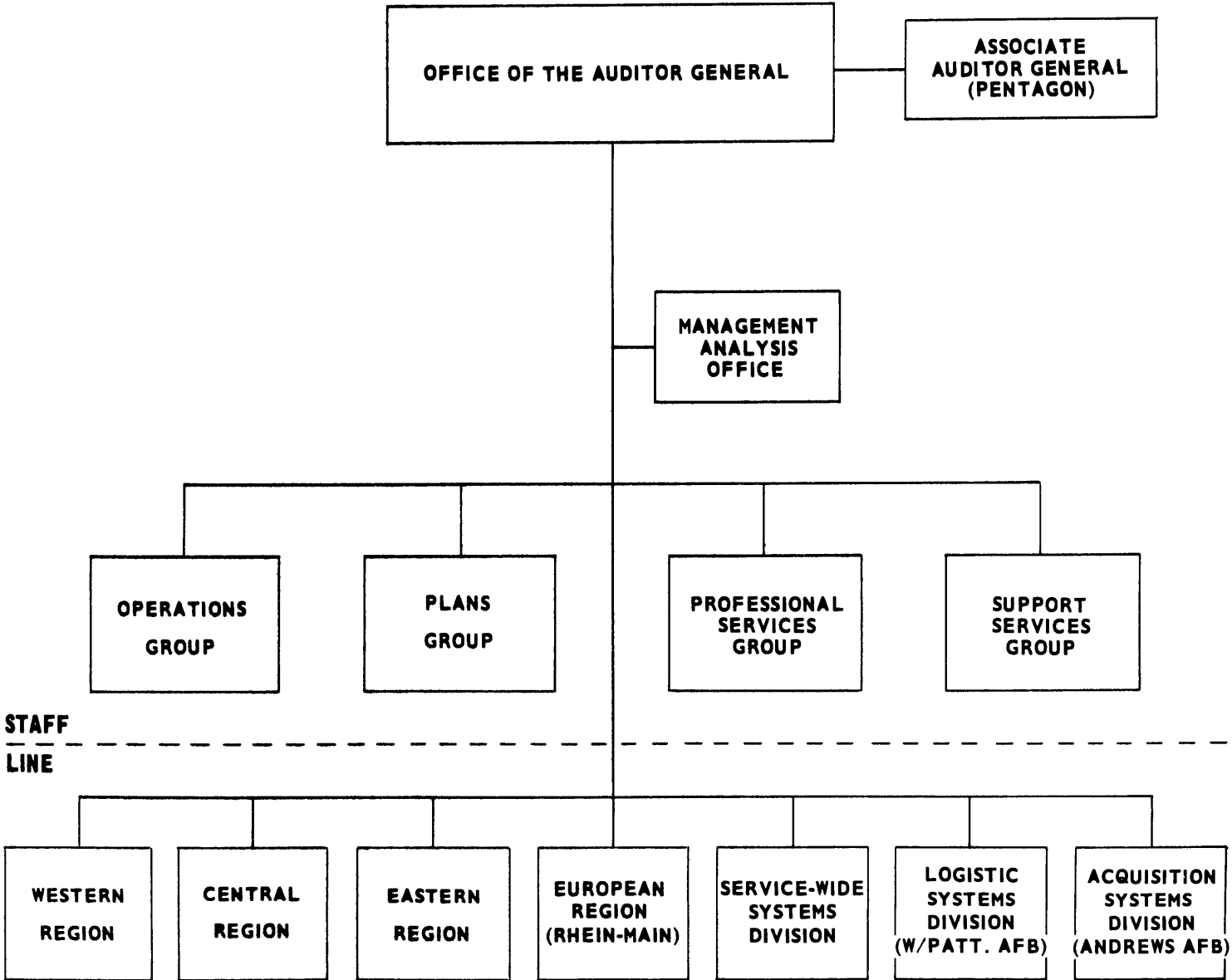
Headquarters, Norton Air Force Base, California
Region Chief - Colonel Wayne K. Hinkle

AGRO, Vandenberg Air Force Base, California
Resident Auditor - Lt. Colonel R. L. Davidson
Chief of Staff, ISTRAD - Colonel J. M. Vivian
Vice Chief of Staff and Comptroller, ISTRAD - Colonel D. W. Rulien

AGRO, Travis Air Force Base, California
Resident Auditor - Lt. Colonel R. F. Ambrose
Wing Commander, Military Airlift Wing - Brigadier General Germeraad
Base Commander - Colonel V. L. Chandler
Comptroller 60 MAWG - Lt. Colonel J. M. Griffity

AGRO, March Field Air Force Base, California
Resident Auditor - Lt. Colonel A. R. Manning

AUDITOR GENERAL
USAF ORGANIZATION CHART



REPORT OF THE DEFENSE
CONTRACT AUDIT AGENCY (DCAA) SUBCOMMITTEE

AICPA ADVISORY COMMITTEE
TO
BLUE RIBBON DEFENSE PANEL

MAY 1970

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SUMMARY

TASK DESCRIPTION

The Defense Contract Audit Agency Subcommittee of the American Institute of Certified Public Accountants (AICPA) Advisory Committee was organized in November 1969 to study, report, and make recommendations on the operations of the Defense Contract Audit Agency, as part of the recommendations to be made by the AICPA Advisory Committee to the Blue Ribbon Defense Panel.

The scope of the study was aimed at, but not limited to:

- (1) Organizational structure.
- (2) Nature and extent of audits and adequacy of auditing procedures.
- (3) Personnel management.
- (4) Quality, timeliness, and usefulness of audit reports and implementation of audit recommendations.
- (5) Audit relationships within and external to the Department of Defense.

SCOPE OF REVIEW

Our review and evaluation of the DCAA have been broad in scope. During our study, we (1) interviewed the principal headquarters staff of the DCAA and many of the top personnel of the DOD having responsibility for procurement, (2) visited DCAA regional, branch, resident,

and procurement liaison offices, (3) interviewed procurement contracting officers, administrative contracting officers, and plant representative offices, (4) interviewed contractor personnel, (5) visited the Contract Audit Institute, and (6) reviewed selected audit reports, audit programs, audit workpapers, technical and policy guides, and other documents pertinent to the Agency.

GENERAL EVALUATION

Our subcommittee has concluded that the assigned mission of the Defense Contract Audit Agency is being fulfilled on an adequate and satisfactory basis.

We believe that:

- The DCAA is properly located, both within the organizational structure of the Department of Defense and within the entire Federal Government.
- The internal organization of the DCAA is good. We believe that it is extremely important that the DCAA remain an independent organization, and that it should not be administered by the procurement function.
- The DCAA has utilized and developed advanced concepts of recruitment, training, guidelines, and promotion. Its salary structure is conducive to attracting those who seek a professional career in accounting, as evidenced by its qualified personnel and the professional atmosphere and esprit de corps that it has been able to

establish and maintain.

- The work program of the DCAA is projected sufficiently in advance to ascertain its workload problems; audit programs are comprehensive; time budgets are utilized; and workpapers furnish adequate support of its findings.

RECOMMENDATIONS

See
page

Organization

- (1) The Defense Contract Audit Advisory Council should be expanded to include a limited number of high-level non-governmental members.

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Personnel and training

- (2) Consideration should be given to the development of additional categories of specialized personnel, particularly in connection with the auditing of major pricing proposals.
- (3) The supervisory management training program should be stepped up.

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Audit programs, procedures, and workpapers

- (4) Provision should be made for periodic critical reviews of Field Audit Offices in each region by top personnel from other regions.
- (5) When inspection trips are made by higher echelons of the DCAA, some contacts should be made with contractor, procurement, and contract administration personnel.

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(6) Audit reports should be improved by certain changes in content and format.		25
<u>Audit relationships within and external to the Department of Defense</u>		
(7) A formal administrative appeal procedure should be provided within the DCAA.		29
(8) Industry guidelines as to reasonableness of costs should be developed within the Department of Defense.		30

DISCUSSION OF FINDINGS AND RECOMMENDATIONS

ORGANIZATION

On December 12, 1964, Secretary of Defense Robert S. McNamara announced establishment of the Defense Contract Audit Agency as a consolidation of the DOD contract audit function. The Agency began operations on July 1, 1965, with William B. Petty as Director. It has its headquarters at Cameron Station, Alexandria, Virginia. The Director is responsible to the Secretary of Defense and receives primary staff supervision from the Assistant Secretary of Defense (Comptroller).

The enabling directive is DOD Directive 5105.36, June 9, 1965, supplemented by ASPR, Section III, parts of paragraphs 3-801 and 3-809.

Defense Contract Audit Advisory Council

Under DOD Directive 5105.36, a Defense Contract Audit Advisory Council was established. The Council is to meet semiannually and is to advise the Secretary of Defense in the direction and control of the Defense Contract Audit Agency. The membership is as follows:

Deputy Secretary of Defense, Chairman

Assistant Secretary of Defense (Comptroller),
Alternate Chairman

Assistant Secretary of Defense (Installation
and Logistics)

Assistant Secretaries of the Military
Departments (Financial Management) and
(Installation and Logistics)

Director, Defense Supply Agency

Deputy Director, Contract Administration
Services, Defense Supply Agency

Recommendation:

We recommend that this Council be expanded to include a limited number of high-level industrial and non-governmental financial personnel in order that a viewpoint other than from within the Department of Defense can be considered.

Purposes and responsibilities of DCAA

The purpose of contract auditing is to assist in achieving the objective of prudent contracting by providing those responsible for procurement and contract administration with financial information and advice on proposed or existing contracts and contractors, as appropriate. Audit services of the Defense Contract Audit Agency are utilized by procurement and contract administration activities to the extent appropriate in connection with the negotiation, administration, and settlement of contract payments or prices which are based on cost (incurred or estimated) or on cost analysis.

The Defense Contract Audit Agency is responsible for:

- (a) Performing all necessary contract auditing for the Department of Defense and providing accounting and financial advisory services regarding contracts and subcontracts to all

DOD components responsible for procurement and contract administration. These services are provided in connection with negotiation, administration, and settlement of contracts and subcontracts.

- (b) Providing contract audit service to such other Government agencies as may be appropriate.

Organizational placement of DCAA in Federal structure

Since the DCAA performs contract audits for many agencies of the Federal Government and has a close relationship with contracting officers, two alternative suggestions have been made with regard to the location of the DCAA in the Federal Government structure. One is to place the DCAA outside the Defense Department in an agency that has overall responsibilities and is not involved in the administration of audit programs. The other is to combine the DCAA with the Defense Contract Administration Service.

Although the DCAA performs most of the contract auditing for the Federal Government, its responsibility for audits of Federal grants was recently transferred to the Department of Health, Education and Welfare (DHEW). This was a logical decision, since the DHEW administers a major portion of Federal grant programs, whereas very few such programs are administered for the DOD. It appears that the DHEW will eventually have responsibility for most grant programs, similar to the responsibility which the DOD presently has with regard to procurement contracts.

With this exception, we do not think it wise to assign responsibility for contract auditing to an agency outside the DOD. In the first place, short of establishing it as a new agency, the only two alternatives for the location of this function, where appropriate overall responsibility exists, are the Bureau of the Budget or the Treasury Department. It is our opinion that neither of these agencies is equipped to administer contract auditing, since none of their other assigned functions are related to government contracting. Secondly, since the DOD is so heavily involved in the contracting process, we believe that removal of the contract audit function from the DOD would seriously impair the necessary coordination of contract audit with the DOD's total contract administration effort. Finally, the utilization of the DCAA by Federal agencies other than the DOD is a relatively simple administrative arrangement.

In order for any audit function to be effective, it must be independent. We are unable to perceive how the contract audit function could be independent if it were subordinated to those whose responsibility it is to negotiate and administer contracts. Moreover, to combine the DCAA with the DCAS would, in our opinion, have an adverse effect on the status and morale of those who now constitute the DCAA.

For the reasons stated above, we are of the opinion that no change should be made in the present organizational placement of the DCAA. This is consistent

with the position taken by the Defense Contract Audit Advisory Council Task Group appointed to review and evaluate the Logistics Management Institute (LMI) study covering "The Contract Audit/Contract Administration Interface" and the direction of the House of Representatives Committee on Appropriations contained in its report on the Department of Defense Appropriation Bill, 1970.

Policy guidance

Although the DCAA receives a degree of policy guidance and staff supervision from the Office of the Director for Audit Policy, OASD(C), for all practical purposes it operates independently.

Internal organization and administration

The internal organization of the DCAA is quite simple and direct. The line of authority is from the Director to the Regional Managers to the field audit offices. Authority and responsibility are highly decentralized. The field audit offices prepare and sign reports and receive general supervision from the regional offices which, in turn, are supervised by headquarters through directives and visits of supervisory personnel. It is an effective organization.

Through mobile audit teams in the branch offices which audit the smaller contractors, resident offices at the large plants, sub offices in areas where there are a number of contractors at approximately the same location,

and liaison offices established at the large procurement contract offices, the DCAA has a practical and desirable mix of stationary versus mobile audit teams.

Organization and staffing

As of June 30, 1969, the DCAA was organized as follows:

Agency Headquarters

7 Regional Headquarters

44 Branch Offices

Responsible for audits of smaller contractors.

96 Resident Offices

Most of the work at each resident office has to do with one large contractor. Personnel are usually in the range of 10 to 30 people.

231 Sub offices

These offices are associated with nearby Resident or Branch Offices for supervision and administrative support. Their work in contractor facilities usually requires the attention of 2 to 5 auditors.

21 Liaison Offices

Personnel in Liaison Offices are associated with procurement and contract administration offices of the military departments and the Defense Supply Agency.

As of April 1, 1970, the personnel breakdown was:

Authorized 3,602 positions:

Positions filled (as of April 23, 1970):

Auditors	2,890
Non auditors	<u>650</u>
	<u>3,540</u>

Most of the professional staff are college graduates, and approximately 400 are certified public accountants.

COORDINATION WITH OTHER AUDIT AND INVESTIGATIVE AGENCIES

The General Accounting Office (GAO), an organizational unit of the Legislative Branch, is charged by law to audit all agencies and establishments of the Executive Branch of the Federal Government. In carrying out this function with respect to an agency's relationship to entities outside the Federal Government, the GAO has pursued a philosophy that this function is the direct responsibility of the department or agency involved. Therefore, it has made audits of contractors only to a limited extent, primarily for the purpose of testing the effectiveness of the agency's audit staff. Consequently, there is no significant duplication of effort in contract auditing between the GAO and the DCAA. As a matter of fact, there is a coordination of contractor auditing by these two agencies for the purpose of avoiding unnecessary duplication of effort.

The latest audit report prepared by the GAO on the DCAA was issued in February 1967. On the whole the findings were quite favorable. The GAO and the DCAA have established a very fine working relationship. Quite often the DCAA will make an audit or give particular emphasis in an audit in order to provide information for, or at the suggestion of, the GAO.

PERSONNEL AND TRAINING

The DCAA is one of the very few organizational units of the DOD that is staffed entirely with civilian personnel. There are no military billets in the Agency.

Recruitment

Prior to the recent DOD expenditure reduction, the DCAA, in conjunction with other agencies, was conducting recruiting campaigns on various college campuses. As of now, the Agency is engaging in no recruiting and no hiring except for replacement. This is rather an unfortunate situation, which we believe will tend to hamper the DCAA's effectiveness in the future.

Training

The Agency provides (when funds are available) periodic seminars, home study courses, and various courses at the Contract Audit Institute, Memphis, Tennessee. Completion of selected courses is necessary for advancement. In addition, the auditors are constantly receiving on-the-job training. Those persons to whom we have been exposed appear to have taken maximum advantage of the training available to them, and, in addition, many have or are taking CPA coaching courses, 50% of the cost of which is borne by the DCAA.

The mission of the Defense Contract Audit Institute (DCAI) is to provide centralized DCAA auditor training programs.

The DCAI is a functional unit of the Professional Development Division and reports to DCAA headquarters. The Institute has a resident manager and five full-time course managers who plan, develop, and conduct the courses offered.

In our review, we visited the Institute's facility in Memphis, Tennessee, and evaluated:

- (a) Course outlines, class problems and cases, and instructors' manuals.
- (b) Physical layout and equipment facilities.
- (c) Several class sessions and instructional films.
- (d) The qualification and experience résumés of instructors.

We found the DCAI to have satisfactory facilities, course material, and professional staff. The courses being offered are designed for the field auditor and, with one exception, are outstanding. In our opinion, the Automatic Data Processing Survey course should be redesigned to incorporate more computer systems audit case studies and less study of computer hardware.

Advanced Audit Techniques group

The DCAA has an organizational unit at headquarters known as the Advanced Audit Techniques (AAT) group.

The overall mission of the AAT group is to:

- (a) Conduct research and studies into pertinent scientific, business, and professional

accounting developments to ascertain methods and techniques which can be used to enhance the effectiveness of the contract audit function.

- (b) Provide on-site or written direction, guidance, and assistance in audit situations involving electronic data processing systems and complex applications of statistical sampling, correlation analysis, improvement curves, and other advanced or improved audit techniques.
- (c) Provide technical assistance to the Office of the Deputy for Resources Management in planning and conducting training courses for DCAA personnel in advanced audit techniques.

There are three levels of AAT organization within

DCAA:

- At the headquarters' level a small staff of professionals is primarily concerned with the application of computer time sharing techniques and programs to general field audits.
- Regional staffs, also small professional groups, are primarily concerned with field audit problems involving contractor computer systems and specialized time sharing programs.
- Branch or field office AAT coordinators are members of either branch or field office audit teams who

are responsible for coordinating the teams' use of AAT systems or resources.

Each region has at least one person on its staff designated AAT who is the liaison between the headquarters group and the users of these techniques in the field. This approach has been eminently successful, with the result that the field audit offices make extensive and effective use of computer auditing, statistical sampling, and sophisticated techniques relating specifically to industrial costs.

In our review, we spent time within all levels of the AAT organization and examined manuals, computer and time sharing systems, audit workpapers, and segments of audit reports which related to results obtained by using Advanced Audit Techniques.

We found the AAT function of the DCAA to be well defined, well organized and well staffed. The service which the AAT group provides to the field audit effort is timely and of high quality.

Promotion

The Agency, in its "Personnel Management Manual," sets forth, in an excellent, precise, well-written manner, its over-all personnel policies. Through the use of "Career Patterns and Profiles," the manual describes the qualifications for each auditor grade, including the necessary education and courses required. Periodic review and rating are made for each individual. Promotions through

GS-13 are performed at the regional office level.

Promotions to grades GS-14 and above are reviewed by the DCAA selection panel at headquarters.

Salaries

The policy of the Agency is to hire beginning accountants at a grade of GS-5, Step 7, or a salary of \$7,856. If the applicant is in the upper third of his class, he may be hired as a GS-7, Step 5, or a salary of \$9,178. As of June 30, 1970, beginning salaries will be Step 10 or \$8,510 for GS-5's and Step 10 or \$10,528 for GS-7's. The following are the salary ranges for the other grades of professional personnel:

GS-9	\$ 9,881 - \$12,842
GS-11	11,905 - 15,478
GS-12	14,192 - 18,449
GS-13	16,760 - 21,791
GS-14	19,643 - 25,538
GS-15	22,885 - 29,752
GS-16	26,547 - 33,627
GS-18	35,505

While the Agency may not be competitive with the large national CPA firms in the matter of starting salaries, it is competitive with the smaller firms, and in the higher grades may be competitive with all public accounting firms, taking into account the superior pension plan of the Federal Government.

Quality of professional staff

Our impression of the staff members at all levels

is that they are well qualified, identify with the profession, and have an excellent esprit de corps. The recruitment program up to the present time has been quite effective. However, it will suffer as the result of the discontinuance of recruitment because of the planned staff reduction incident to the retrenchment program of the DOD. Training programs appear to be comprehensive, embody the most advanced audit techniques, and are well attended. The staff is encouraged to take the CPA examinations.

The DCAA presently maintains specialized personnel, primarily in the AAT (Advanced Audit Techniques) area. All other personnel are rotated to develop broad experience and capability.

More than 40% of the DCAA audit effort presently relates to pricing proposals which require specialized skills because they involve estimates of future rather than historical costs. No profession or discipline has techniques which permit accurate appraisal or prediction of future events and costs.

Recommendation:

We recommend that consideration be given to the development and designation of additional categories of specialized personnel, particularly in relation to the audit of major pricing proposals. This would require a change in existing personnel policies which emphasize breadth of experience rather than specialization except with respect to the existing program for Advanced Audit Techniques.

* * * * *

The Report of the Directorate of Inspection Services,
Office of the Assistant Secretary of Defense (Administration),

in its inspection report of December 4-18, 1967, expressed concern over the loss of personnel at the journeyman level (GS-11). We noted an age gap between many of the top personnel who will soon be retiring and the next echelon. There appears to be a sufficient number of young personnel with the potential to fill these top positions.

Recommendation:

Because of the age gap between the top personnel and the next echelon, we suggest that the DCAA step up its supervisory management training program.

AUDIT COVERAGE AND FREQUENCY

Purposes and responsibilities

The purpose of contract auditing is to assist in achieving the objective of prudent contracting by providing those responsible for procurement and contract administration with financial information and advice on proposed or existing contracts and contractors, as appropriate. Audit services of the Defense Contract Audit Agency shall be utilized by procurement and contract administration activities to the extent appropriate in connection with the negotiation, administration, and settlement of contract payments or prices which are based on cost (incurred or estimated) or on cost analysis.

The Defense Contract Audit Agency is responsible for:

- (1) Performing all necessary contract auditing for the Department of Defense and providing accounting and financial advisory services regarding contracts and subcontracts to all DOD components responsible for procurement and contract administration. These services are provided in connection with negotiation, administration, and settlement of contracts and subcontracts.
- (2) Providing contract audit service to such other Government agencies as may be appropriate.

Nature of audit services

The audit services of the DCAA are summarized as follows:

Pre-award:

- Evaluate contractor price proposals
- Evaluate contractor estimating systems
- Evaluate contractor financial capability
- Review contractor accounting systems
- Attend price negotiation conferences
- Assist in review of contractor purchasing systems
- Liaison with procurement and contract administration offices
- Validate contractor applications for qualification under the Contractors Weighted Average Share in Cost Risk (CWAS)

Post award:

- Audit contractor-incurred costs
- Process contractor public vouchers
- Evaluate price proposals - contract changes
- Review contractor financial reports to the DOD
- Review progress payment requests
- Audit hardship claims
- Review termination claims
- Perform defective price reviews under P.L. 87-653

In addition, the Agency performs substantial work for 17 Federal agencies outside the Department of Defense, undertaken on a reimbursable basis under agreements between the DOD and the other agencies. The largest of these are the NASA and the DHEW.

Minimum amount for contracts subject to price proposal audits

ASPR 3-809 provides that "prior to negotiation of contract (or modification) in excess of \$100,000...where price will be based on cost or pricing data, the CO shall request an audit review by DCAA." An audit report of the Deputy Comptroller for Internal Audit, dated December 17, 1969, suggested that this minimum amount be increased to \$300,000. The LMI report suggested a minimum of from \$250,000 to \$500,000. The Director of the DCAA is presently conducting a study for a three months' period that will determine the advisability of making audits of proposals of from \$100,000 to \$300,000, in relation to price reductions resulting from costs questioned by the auditors.

Contractors Weighted Average Shares in Cost Risk (CWAS)

CWAS, approved for use by contractors in 1966, provides for measuring the degree of cost risk inherent in its U.S. Government and commercial contract mix. It applies only to supply and research contracts and sub-contracts with commercial organizations. The CWAS rating is based upon total costs incurred under each of the various types of contracts during the year. While the rating is determined by mathematical computation, the CWAS concept is "aimed at general orders of magnitude . . . and practicality rather than precision." Contractors whose approved CWAS ratings are equal to or in excess of the prescribed threshold are not subject to audit tests for reasonableness of certain indirect costs incurred during the period used to establish the CWAS rating. Nevertheless, costs incurred by a contractor, including CWAS-designated costs, will continue to be subject to audit to determine their allocability under ASPR Section XV.

Despite the fact that at the time CWAS was approved for use it was thought that a number of contractors would avail themselves of its provisions, this vehicle has been sparsely used. The principal reasons for this appear to include: (1) Many contractors have failed to meet the prescribed threshold. (2) Being limited to indirect cost items, CWAS did not eliminate an appreciable amount of auditing. (3) NASA did not approve the use of CWAS on its contracts. (4) CWAS did not result in a lessening of administrative control over the contract by the ACO.

AUDIT PROGRAMS, PROCEDURES, AND WORKPAPERS

Pre-audit planning

We found that audit schedules are projected by the regional, branch, and resident offices from two to six months in advance. Before audits are assigned, a time budget is prepared and, prior to the beginning of work, an audit program, which we found to be comprehensive and responsive to the audit situation involved, is prepared.

Workpapers

Our review of selected workpapers indicated that the auditors' findings were well documented.

Review teams

Quality control is maintained through a review of the work of mobile and sub-office teams' workpapers before the report is issued and through supervisors at the regional offices who make frequent visits to the resident offices and branches. In addition, there is an inspection group at headquarters which visits the field audit offices. Both the regional supervisors and headquarters inspectors prepare field trip reports which provide the regional managers and headquarters with an evaluation of the offices visited.

Recommendation:

We recommend that the DCAA provide for annual or periodic critical reviews of a limited number of selected reports, audit programs, and workpapers in each region by top personnel from another region. A specific program should be prepared for these reviews, and the findings should be documented

in a report distributed to the region under review and to the DCAA headquarters.

These reviews would be in addition to those presently performed by headquarters and the regional supervisory staff.

Recommendation:

We suggest that, when inspection trips are made by higher echelons of the DCAA, contacts with contractor, procurement, and contract administration personnel would be helpful in obtaining their view points and maintaining a good working relationship.

Audit philosophy

The role of the DCAA is to serve the contracting officers in an advisory capacity. Consequently, after they have delivered their report and rendered such assistance as may be requested by the contracting officer by way of explanations or assistance in negotiation, their job is done. In the case of forward pricing proposals, the procurement contracting officer (PCO) is required in his negotiation memorandum to give his reasons for any recommendation in the audit that he did not choose to follow. The DOD, however, has instituted a procedure under which the DCAA reports to the OSD and to the major procurement commands those situations in which it appears that valid audit recommendations involving significant amounts have been disregarded by contracting officers or negotiators for reasons which do not appear to be justifiable.

Audit workload

A summary of the audit workload showing the number and amount of contracts and pricing proposals for fiscal years 1967, 1968, and 1969 and the six months ended December 31, 1969, is shown in Exhibit 6. It is obvious that priority is given to forward pricing proposals. Other types of audits, in order of priority are: defective pricing audits, direct work other than audits of incurred costs, and audits of incurred costs. Also, upon reference to Exhibit 6, it may be seen that, while the audit backlog has varied from year to year, it has never reached serious proportions. Although the pending reduction of personnel will probably cause an increase in the audit backlog, this should be a temporary situation which will be offset by a decrease in new contracts as the entire cutback in defense spending takes effect.

Audit management

The DCAA is a decentralized organization with strong centralized control accomplished through a Contract Audit Manual and other technical literature, field visits from headquarters and regional offices, training programs, and meetings. There is some risk, of course, that extensive and detailed specification of allowable costs and auditing procedures may tend to minimize professional judgment, which must be part of the auditing process.

Contract Audit Manual

As part of its training and everyday operations,

the Agency has developed a "Contract Audit Manual, DCAAM 7640.1." The manual appears to be a comprehensive, professional publication providing excellent guidance to the auditor.

Uniform Cost Accounting Standards (UCAS)

The American Institute of Certified Public Accountants has participated in studies of this proposal and concluded that the proposal to have more uniform cost accounting standards is feasible.

We believe that the benefits of this proposal are very much dependent upon the character, reasonableness, and practicality of the standards and regulations which are developed.

REPORTS

Our review of DCAA audit reports indicated that they are generally of good to excellent quality.

It is frequently necessary for the reports to contain qualifications relating to certain areas because of lack of support, uncertainties, or reporting deadlines. It is obviously desirable to minimize the number of such qualifications, if this can be done. It is the policy of the DCAA to issue follow-up reports, in appropriate circumstances, to clear up qualifications on the basis of subsequent information.

Recommendation:

We recommend that the DCAA continue its efforts to issue reports of the highest technical quality and to give attention to the following:

(a) Qualifications and Questioned Costs:

Reports frequently question all of a particular category of costs because of lack of support or uncertainty regarding certain elements of cost included in the total category.

We recommend that report segregation be made of questioned costs, as follows:

- (i) Items questioned for sound and supportable reasons.
- (ii) Items questioned because of lack of support and which are not susceptible to an audit opinion.

This would assist the contracting office in analyzing problem areas requiring further consideration.

We also recommend that every effort be made to clearly state the specific reasons for questioning costs. Instances were observed in which the audit report stated that an item was questioned for lack of support when the auditor did not agree with the kind of support submitted by the contractor.

(b) Character of Contractor's Pricing Proposal:

We recommend that each report on forward pricing contain a brief summary describing the character of the contractor's pricing proposal. Was it submitted in reasonable detail and with adequate supporting data and explanations? Does the contractor intend to supplement the proposal?

(c) Summary of Findings:

Each report should contain a brief summary of findings early in the text.

(d) Table of Contents:

Each report of any length should have a table of contents or an index.

We understand that the recommendations (a) and (c) above are presently under consideration at the DCAA headquarters.

AUDIT RELATIONSHIPS WITHIN AND EXTERNAL TO THE
DEPARTMENT OF DEFENSE

Field contacts

Members of our subcommittee visited four of the seven DCAA regional offices, selected branch offices, and resident offices nearby. Our contacts included visits with the Defense Contract Administration Service (DCAS), contracting officers, and contractors' financial personnel, as listed in Exhibit 8.

There have been complaints of lack of coordination or cooperation by the DCAA with other agencies, particularly procurement. A study was made by the Logistics Management Institute of "The Contract Audit/Contract Administration Interface" which was reported upon in March 1969. Some complaints relate to late reports. The DCAA issues about 25,000 to 30,000 reports of various kinds each year. Price proposals are assigned the highest priority.

With minor exceptions, our contacts at all levels within the DOD produced favorable, rather than unfavorable, comments as to coordination and cooperation.

We summarize below certain comments made to us by contracting officers and contractors' financial personnel (not necessarily applicable only to the DCAA). In most instances, these comments relate to areas which cause problems for the parties concerned, but the questions

involved have many facets, and the solutions suggested or implicit in the comments are not always, in our opinion, in the best interests of the Department of Defense.

Contracting officers (administrative)

1. Reference was made to the provisions in Section XV, ASPR which require the determination of reasonableness. Auditors continue to question items which have been reinstated by contracting officers. A suggestion was made that establishment of industry guidelines within the DOD would assist in this area.
2. There is some feeling that the Contract Audit Manual limits the application of judgment by the DCAA in making decisions.

Contractors' financial personnel

1. Procurement contracting officers are alleged to have requested expensive bid proposals when they have already decided on the ultimate contractor.
2. There is a feeling that the DCAA auditor has become a dominant figure in the negotiation process because of the fact that the contracting officers must justify their departures from the auditor's findings.

3. There is a feeling that the difficulty of obtaining decisions results in too many problems being taken to the Armed Services Board of Contract Appeals.
4. Delays in definitizing letter contracts are a subject of frequent comment.
5. There is a desire that auditors' reports on projected costs be discussed with the contractor before transmittal to the contracting officer. (This is presently prohibited by ASPR and also by contracting officers.)
6. Concern has been expressed about the probable difficulties in implementing and administering Uniform Cost Accounting Standards.
7. Auditors request access to budgets, forecasts, and management reports which the contractor believes are not pertinent to the auditors' work.

Administrative appeal procedure within DCAA

When contractors cannot reach agreement with contracting officers concerning acceptable contract terms or changes, the only appeal channels are the Armed Services Board of Contract Appeals or the Court of Claims. Some of these disputed areas involve accounting or auditing, and the contractor may believe that DCAA findings on which the contracting officer is relying are unreasonable or in error.

Recommendation:

We recommend that provision be made for a formal administrative appeal procedure within the DCAA, which would be made known to contractors, to facilitate earlier settlement of such unresolved matters. This should be established at a level at least as high as the regional office and probably at the headquarters level.

The administrative appeal procedure would result only in a changed position of the DCAA with respect to the audit findings if the appeal function concluded that such a changed position was proper. It is not intended that this procedure would change the present authority of the contracting officers to make the final determination.

The Internal Revenue Service has a procedure somewhat similar to that suggested here.

Reasonableness of costs

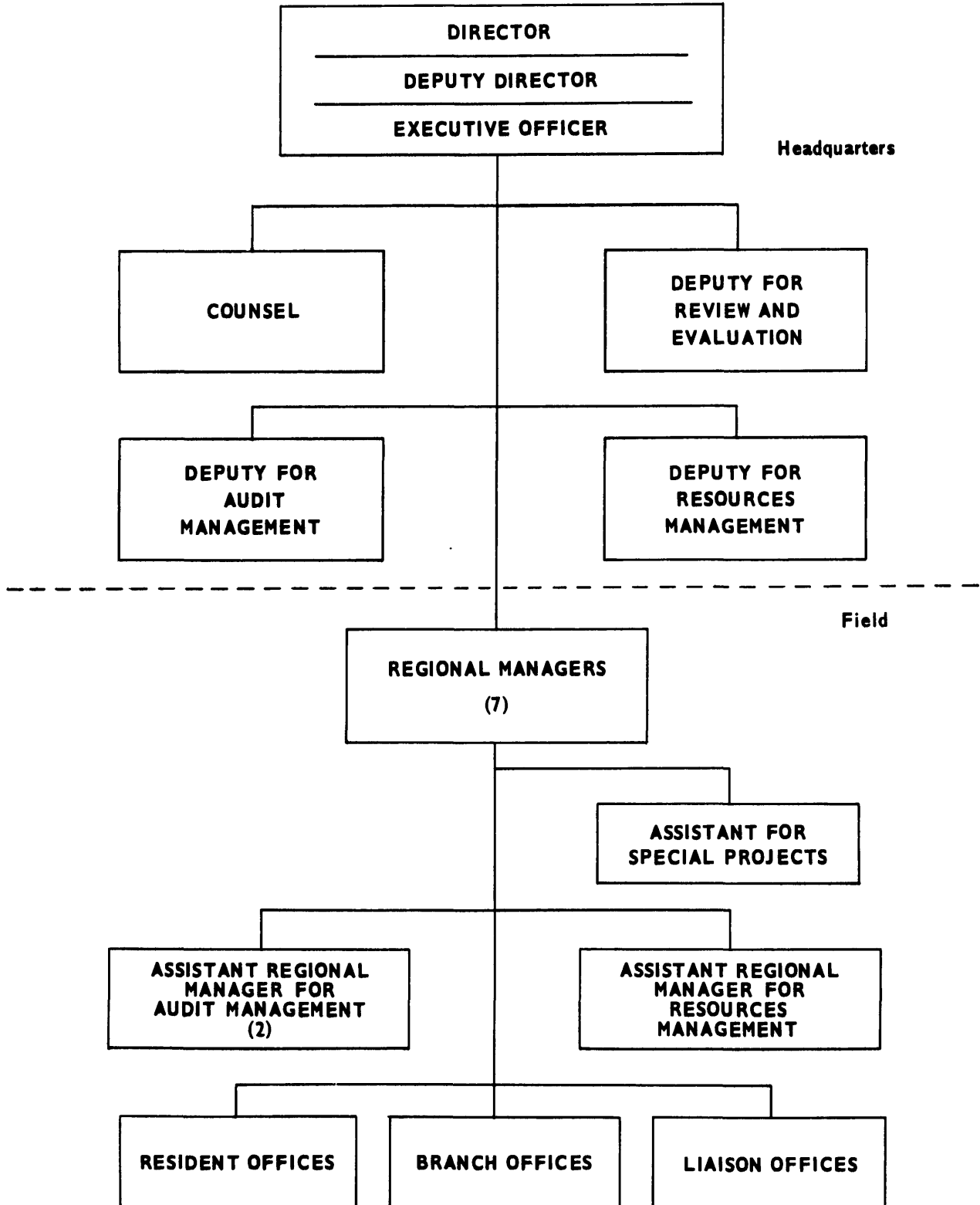
The provisions set forth in Section XV, Armed Services Procurement Regulations, requiring consideration of the reasonableness of costs by auditors and contracting officers are difficult to apply.

Recommendation:

We suggest that development within the DOD of data in the form of industry guidelines for cost elements subject to these provisions would be useful to contracting officers and field auditors. Audit and administrative time would probably be reduced. Individual situations which are outside the normal range or which involve unusual circumstances would still be thoroughly investigated.

DEFENSE CONTRACT AUDIT AGENCY

ORGANIZATION CHART



DEFENSE CONTRACT AUDIT AGENCY

COMPARATIVE AUDIT PERFORMANCE DATA

	<u>FY 1968</u>	<u>FY 1969</u>	<u>FORECAST FY 1970</u>
DOLLARS EXAMINED (Billions):			
Incurred costs	\$23.9	\$26.4	\$ 25.7
Pricing proposals	<u>50.3</u>	<u>62.4</u>	<u>78.7</u>
TOTAL	<u>\$74.2</u>	<u>\$88.8</u>	<u>\$104.4</u>
COSTS QUESTIONED (Billions):			
Incurred costs	\$.4	\$.4	--
Pricing proposals	<u>4.7</u>	<u>6.4</u>	--
TOTAL	<u>\$ 5.1</u>	<u>\$ 6.8</u>	--
Number of pricing proposals audited	21,590	21,880	23,000

DEFENSE CONTRACT AUDIT AGENCY
COMPARATIVE WORKLOAD INDICATORS
AND AUDIT PERFORMANCE DATA

	<u>FY 1969</u>	<u>FY 1968</u>
Number of Contractors, Year-end	4,350	4,813
New Auditable Contracts	12,441	14,042
Dollar Value (Billions)	\$20.6	\$24.7
Costs Examined (Billions)	\$26.4	\$23.9
Contracts in Inventory, Year-end	51,071	51,492
Dollar Value (Billions)	\$139.5	\$137.0
Price Proposals Received	21,930	21,395
Dollar Value (Billions)	\$66.2	\$49.8
Price Proposals Completed	21,880	21,590
Dollar Value (Billions)	\$59.2	\$50.9
Estimating System Surveys		
Number of Contractors Eligible	273	
Initial Reports Issued	248	
Follow-up Reports Issued	133	
Post-Award Audits - P.L. 87-653		
Defective Pricing Reviews Completed	1,578	582
Value of Defective Pricing Reviews		
Completed (Billions)	\$13.6	\$3.8
Indications of Defective Pricing	362	104
Recommended Price Adjustments (Millions)	\$84.6	\$18.7

DEFENSE CONTRACT AUDIT AGENCY

NUMBERS OF CONTRACTS AND PRICE PROPOSALS

	<u>CONTRACTS</u>			<u>PROPOSALS</u>		
		<u>NON-</u>			<u>NON-</u>	
	<u>DEFENSE</u>	<u>DEFENSE</u>	<u>TOTAL</u>	<u>DEFENSE</u>	<u>DEFENSE</u>	<u>TOTAL</u>
On hand 7-1-68	38,900	12,592	51,492	1,667	139	1,806
Received during FY	9,360	3,081	12,441	19,640	2,290	21,930
SUBTOTAL	<u>48,260</u>	<u>15,673</u>	<u>63,933</u>	<u>21,307</u>	<u>2,429</u>	<u>23,736</u>
Completed during FY	<u>10,187</u>	<u>2,675</u>	<u>12,862</u>	<u>19,627</u>	<u>2,253</u>	<u>21,880</u>
On hand 6-30-69	<u>38,073</u>	<u>12,998</u>	<u>51,071</u>	<u>1,680</u>	<u>176</u>	<u>1,856</u>

DEFENSE CONTRACT AUDIT AGENCY

REIMBURSABLE WORK FOR NON-DEFENSE AGENCIES

	REIMBURSEMENT EARNED FY 1969		ESTIMATED REIMBURSEMENT FY 1970	
	AMOUNT (\$000)	MAN-YEARS EXPENDED	AMOUNT (\$000)	MAN-YEARS REQUIRED
NASA	\$4,945	376	\$5,197	356
AEC	248	19	205	14
DOT	253	19	225	15
HEW	1,157	88	954	65
Peace Corps	59	5	52	4
State (AID)	166	13	137	9
OEO	304	23	190	13
NSF	27	2	27	2
Other ^{1/}	175	13	187	13
TOTAL	<u>\$7,334</u>	<u>558</u>	<u>\$7,174</u>	<u>491</u>
Reimbursements Earned FY 1968	<u>\$6,821</u>	<u>557</u>		

^{1/} Includes work for: Department of Commerce; Department of Interior; Post Office Department; Veterans Administration; Department of Labor; Office of Emergency Planning; National Academy of Sciences; U. S. Information Agency; Department of Justice; Department of Housing and Urban Development.

DEFENSE CONTRACT AUDIT AGENCY

SUMMARY OF AUDIT INVENTORY

	SIX MONTH ENDED <u>12-31-69</u>	FY ENDED JUNE 30		
		<u>1969</u>	<u>1968</u>	<u>1967</u>
CONTRACTS NUMBER:				
On hand beginning of period	49,297	51,492	49,500	46,894
Received during period	6,154	12,441	14,042	15,473
Completed during period	6,272	12,862	11,721	12,867
On hand at end of period	49,179	51,071	51,821	49,500
AMOUNT (MILLIONS):				
On hand beginning of period	\$139,692	\$136,507	\$132,063	\$118,072
Received during period	9,566	20,568	24,668	30,902
Completed during period	8,135	17,528	19,703	16,911
On hand at end of period	141,123	139,547	137,029	132,063
FORWARD PRICING PROPOSALS NUMBER:				
On hand beginning of period	1,823	1,806	2,062	1,614
Received during period	9,930	21,930	21,395	22,182
Completed during period	10,186	21,880	21,590	21,734
On hand at end of period	1,567	1,856	1,867	2,062
AMOUNT (MILLIONS):				
On hand beginning of period	\$ 11,332	\$ 4,992	\$ 6,605	\$ 4,803
Received during period	46,777	66,234	49,815	53,237
Completed during period	50,352	59,226	50,943	51,435
On hand at end of period	7,757	12,001	5,477	6,605

DEFENSE CONTRACT AUDIT AGENCY

PRIORITY ASSIGNED TO AUDITS

1. PRICE PROPOSAL EVALUATIONS
2. DEFECTIVE PRICING AUDITS (P.L. 87-653)
Up to 5% of available direct auditor time (by installation and not Agency-wide)
3. OTHER DIRECT WORK - OTHER THAN AUDIT OF INCURRED COSTS, e.g.
GAO Reports
Cost Reduction Validations
Financial Reports (SAIMS, C/SCSC)
Special Audits, Special Projects and Studies
4. AUDIT OF INCURRED COSTS
With priority at this level to overhead audits

DOD OFFICES AND CONTRACTORS VISITED
AND LIST OF PERSONS INTERVIEWED

The Hon. Robert C. Moot, Assistant Secretary of Defense (Comptroller)

The Hon. Barry J. Shillito, Assistant Secretary of Defense
(Installations and Logistics)

Mr. J. M. Malloy, Deputy Assistant Secretary of Defense (Installations
and Logistics) Procurement Policy

The Hon. Phillip N. Whittaker, Assistant Secretary of the Air Force
(Installations and Logistics)

Mr. Aaron Racusin, Deputy Assistant Secretary of the Air Force
(Procurement)

Mr. Gerald B. Russell, Deputy Assistant Secretary of the Army
(Installations and Logistics) (SS&I)

Col. John S. Benner, Jr., Director, Procurement Policy and Review
(OASA) (I&L)

Capt. R. G. Freeman III, Naval Material Command, Deputy Chief of
Naval Material (Procurement and Production)

Capt. L. O. Larson, Director of Procurement, Office of the Assistant
Secretary of the Navy (I&L)

Mr. D. A. Abel, Procurement Management Review Staff, Office of the
Assistant Secretary of the Navy (I&L)

Mr. Kenneth K. Kilgore, Director of Audit Policy, Office of the
Assistant Secretary of Defense (Comptroller)

Mr. Stewart Collins, Chief, Contract Audit Policy, Office of the
Assistant Secretary of Defense (Comptroller)

GENERAL ACCOUNTING OFFICE

Mr. James R. Hammond, Associate Director, Defense Accounting and
Auditing Division

Mr. Charles Weinfeld, Assistant Director, Defense Accounting and
Auditing Division

Mr. Robert Hall, Assistant Director, Defense Accounting and Auditing Division

Mr. Frank Chemery, Assistant Director, Defense Accounting and Auditing Division

DEFENSE SUPPLY AGENCY

Lt. General Earl C. Hedlund, Director

Maj. General Thomas Scott, Deputy Director

Brig. General James P. Pugh, Jr., Executive Director,
Procurement and Production

Rear Admiral J. L. Howard, Deputy Director for Contract Administration Services

DEFENSE CONTRACT ADMINISTRATION SERVICES

Philadelphia Region:

Col. Jesse M. Hamby, Commander
William Rothgeber, Deputy
Lt. Col. Edward Turner, Director of Contracts

New York Region:

H. Laskin, Director
S. Hasses, Deputy Director

Los Angeles Region:

Brig. General T. S. Coberley, Commander DCASR

Nashua, New Hampshire:

Arthur Parrow, Chief of Contract Administration, DCAS Office,
Sanders Associates, Inc.

DEPARTMENT OF THE NAVY

Washington, D. C.:

D. J. Weatherby, Jr.
Executive Director of Contracts
Naval Ship Systems Command

M. E. Jones
Assistant Deputy Chief
Procurement and Production
Naval Material Command

Paul Webb
Deputy Head
Coordinated Negotiation Branch
Naval Material Command

NAVPRO, Westinghouse Electric Corporation, Baltimore, Maryland:

W. R. Skinner, Contracts Director

Lockheed Aircraft Corp., Burbank, Calif.:

John Crawford, Navy Plant Representative (ACO)

NAVPRO, Sperry Gyroscope:

Capt. G. L. Bliss, Jr., USN Director
H. Yanof, Director Contracts Division

CONTRACTORS

Lockheed Aircraft Corp., Burbank, Calif.:

Keith Anderson, Vice President, Government Contracts and Pricing

Sperry Gyroscope Div.:

T. Kinden, Controller

Sanders Associates, Inc., Nashua, New Hampshire:

Daniel C. Chisholm, Financial Vice President, Treasurer
Terrence E. McClary, Vice President, Controller

Daniel Wagner Associates, Inc., Paoli, Pennsylvania:

Daniel Wagner, President

RCA, Defense Electronics Products, Moorestown, New Jersey:

Max Lehrer, Division Vice President, Defense Finance
Don Brewer, Manager, Auditing and Government Reports
H. V. Hannum, Management Control Systems
A. A. Landesco, Jr., Manager, Contract Negotiation and Administration
D. M. Franklin, Manager, Pricing and Systems Coordination
A. Posner, Manager, Management Information Systems

Westinghouse Electric Corporation, Defense and Space Center,
Baltimore, Maryland:

N. V. Petrou, Vice President and General Manager
(President, Defense and Space Center)
H. F. Murray, Divisions Controller

DEFENSE CONTRACT AUDIT AGENCY

Office of the Director:

William B. Petty, Director
Bernard B. Lynn, Deputy Director
Frank J. Beatty, Executive Officer
Frederick Neuman, Deputy for Audit Management
William E. Crouch, Assistant Deputy for Audit Management
J. L. Kiraly, Deputy for Review and Evaluation
I. J. Sandler, Special Projects Division
Harry W. Kettles, Deputy for Resources Management

Philadelphia Regional Office:

George J. Penick, Regional Manager
F. G. Green, Assistant Regional Manager
C. Y. Murch, Assistant Regional Manager
V. H. Moses, Supervisory Auditor

Silver Spring Branch Office:

Clyde S. DeHoff, Jr., Branch Manager
W. L. Jackson, Audit Supervisor

Philadelphia Branch Office:

T. J. Keating, Branch Manager
Richard Scallan, Auditor
James Kelly, Auditor

Resident Office, RCA, Camden, New Jersey:

Adam M. Galie, Resident Auditor
Willard Weikel, Auditor

Resident Office, Westinghouse Electric Corporation, Baltimore, Maryland:

Wilfred Weber, Resident Auditor
J. Kendig, Auditor
H. Ruth, Auditor
L. Stortz, Auditor
R. Metger, Auditor

N. Lorch, Auditor
M. Melville, Auditor
A. Shinkaveg, Auditor
F. Neville, Auditor

Boston Regional Office:

William Melymuka, Regional Manager
James P. Clarke, Assistant Regional Manager for Audit Management
Jack Bennett, Assistant for Special Projects
Ernest C. Pettit, Assistant Regional Manager, Resources Management
Adolph Kroch, Regional Supervisory Auditor

Waltham Branch Office:

L. F. Kaplan, Branch Manager, Waltham Branch Office
T. H. Hagen, Waltham Branch Auditor
N. F. Kelley, Waltham Branch Auditor
J. L. Jacobson, Waltham Branch Auditor

DCAA Residency at Sanders Associates, Inc., Nashua, New Hampshire:

W. C. Harrington, Jr., Resident Auditor

Washington Liaison Office:

Dennis E. Modesitt, Chief, Washington Liaison Office, Philadelphia
Region
Charles G. Barron, Regional Supervisory Auditor, Philadelphia
Region

Los Angeles Regional Office:

Alex Soll, Regional Manager
Clayton B. Glass, Assistant Regional Manager

Los Angeles Branch Office:

Frank Sweeney, Branch Manager

Resident Office, Lockheed Aircraft Corp., Burbank, California:

Martin Krantz, Resident Auditor

DCAA New York Region:

B. Gold, Regional Manager
George Hudson, Assistant Regional Manager - Audit Management
I. Goldenberg, Assistant for Special Projects

DCAA New York Branch:

W. Grayson, Branch Manager

DCAA Residency at Sperry Gyroscope, Division of Sperry Rand Corp.:

F. J. Zaborowski, Resident Auditor

M. Goldstein, Assistant Resident Auditor

PUBLICATIONS AND DOCUMENTS REVIEWED

1. DCAA Contract Audit Manual.
2. DCAA Personnel Manual.
3. DCAA 5110.1 - Organization Manual, May 1969.
4. DCAA Summary Report on Estimating Systems Survey through Fiscal Year 1968.
5. DCAA Summary Report on the Defective Pricing Program.
6. DCAA Annual Report 1969.
7. Quarterly Performance Reports by:
 - a. Silver Spring Branch Office.
 - b. Philadelphia Branch Office.
 - c. Resident Office, Westinghouse Electric Corporation, Baltimore, Maryland.
 - d. Philadelphia Regional Office.
 - e. Boston Regional Office.
 - f. Waltham Branch Office.
 - g. Resident Office, Sanders Associates, Inc., Nashua, N. H.
8.
 - a. Various letters and memorandums regarding overhead problems - Westinghouse Electric Corporation.
 - b. Various letters and reports regarding overhead problems - Sanders Associates, Inc.
9. Naval Audit Service Report, October 13, 1969, of Naval Plant Representative Office, Westinghouse Electric Corporation, Baltimore, Maryland.
10.
 - a. Various Audit Programs.
 - b. Various Working Paper Files.
 - c. Various Trip Reports of Supervisory Auditors.
 - d. Various Audit Reports.
11. Minutes of Defense Contract Audit Advisory Council Meetings.
 - a. July 2, 1965.

- b. January 28, 1966
 - c. September 30, 1966
 - d. February 8, 1967
 - e. September 20, 1967
 - f. February 27, 1968
 - g. September 11, 1968
 - h. March 6, 1969
- 12. Memorandum, December 12, 1964, from Secretary of Defense re: Consolidation of Contract Audit Activities.
 - 13. DOD Directive No. 5105.36, June 9, 1965 - Defense Contract Audit Agency.
 - 14. Circular A-21 (Revised) March 3, 1965, Bureau of the Budget re: Cost principles applicable to research and development under grants and contracts with educational institutions.
 - 15. a. Report - GAO to Congress - Internal Audit Activities in the Department of Defense, March 8, 1968.
b. Reply, August 26, 1969 - K. K. Kilgore, Deputy Comptroller for Audit Systems, to GAO.
 - 16. Report - GAO to Congress - Survey of Reviews by DCAA of Contractors' Price Proposals Subject to Public Law 87-653, February 1967.
 - 17. a. Letter, November 5, 1968, GAO to Secretary of Defense re: Auditors' findings on allowability of indirect costs under cost-reimbursement contracts.
b. DCAA letter, December 10, 1968, to Assistant Secretary of Defense (Installations and Logistics) for use in preparation of reply to GAO.
c. Letter, January 31, 1969, Assistant Secretary of Defense (I&L) to GAO.
 - 18. a. The Contract Audit/Contract Administration Interface, LMI Task 68-17, March 1969, Logistics Management Institute.
b. DCAA Comments, April 8, 1969, to the LMI Report.
c. Memorandum, January 13, 1970, Robert C. Moot, Assistant Secretary of Defense and the Defense Contract Audit Advisory Council Task Group on the LMI Report.
d. 91st Congress, House of Representatives, Report No. 91-698, Department of Defense Appropriation, 1970, Mr. Mahon, Committee on Appropriations Report to accompany H. R. 15090, Page 43, re: above study by LMI.

- e. Memorandum, March 12, 1970, The Hon. Robert C. Moot, re: implementation of operating improvements within DOD (as recommended by LMI) regarding draft plan to be considered by the Defense Contract Advisory Council.
- 19. a. Directorate for Inspection Services - Office of the Assistant Secretary of Defense (Administration) Defense Contract Audit Agency Inspection Report, December 4-18, 1967.
- b. DCAA reply, April 12, 1968, and OSD Comments, May 15, 1968 to above report.
- 20. a. Deputy Comptroller for Internal Audit (Office of the Assistant Secretary of Defense) (Joseph P. Welsch) Report on the Audit of the Defense Contract Audit Agency, October 31, 1969.
- b. DCAA Reply, December 15, 1969, to above report.
- c. Memorandum by George W. Berquist, Deputy Assistant Secretary of Defense to DCIA, December 11, 1969.
- d. DCIA Rejoinder, December 30, 1968, to DCAA reply.
- 21. Memorandum October 29, 1969, for the Assistant Secretary of Defense (Administration) by Col. Wm. B. Hawley, Acting Director, Organizational and Management Planning re: Inspection, Internal Audits and Internal Review Functions in the Office of the Secretary of Defense and various replies to this memorandum.
- 22. Reviewed various documents furnished by Mr. Kilgore's office concerning the problems of interface with DCAA and Internal Audit Agencies regarding audit of procurement policies and review of DCAA liaison operations.
- 23. Draft of GAO Digest of "Problems Noted in the Career Program for DOD Procurement Personnel."
- 24. Report to the Blue Ribbon Defense Panel on "Automatic Data Processing Equipment" by John P. Malbrain and David B. Breeden, February 24, 1970.
- 25. DCAA Memorandum on Integrated TACT (Total Audit Concept Technique) Review Program.
- 26. In addition various DCAA special studies on such diverse subjects as insurance, improvement curve, Overhead Audit Findings, Audits of Not-for-Profit Organizations and home office audits of conglomerate corporations were furnished to us.

We also reviewed various pamphlets and material used for recruitment and staff training, as well as selected personnel files to determine qualification and training of individuals.

REPORT OF THE
ELECTRONIC DATA PROCESSING (EDP) AUDITING
SUBCOMMITTEE

AICPA ADVISORY COMMITTEE
TO
BLUE RIBBON DEFENSE PANEL

MAY 1970

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SUMMARY

TASK DESCRIPTION

The task of the EDP Auditing Subcommittee was to review the audit groups of the Department of Defense (DOD) with respect to the emphasis being placed on the use of electronic data-processing (EDP) equipment as an audit tool and with respect to the competence of these groups in auditing EDP-based systems.

The scope of the subcommittee's study included:

- (1) The manner in which each of these groups is organized for EDP auditing and for the use of EDP equipment for audit purposes.
- (2) The selection and training of personnel.
- (3) The methods available for evaluation of computer programs and for the use of EDP systems in connection with audit programs.

SCOPE OF REVIEW

Our review consisted of discussions with personnel in charge of data centers; a limited examination of computer program documentation, hardware utilization controls, and related matters; and discussions with audit and other DOD personnel with respect to the scope and nature of audits performed on information being processed by EDP equipment. Specific attention was paid to the professional level and quality of the audit personnel, and to the extent of the specialized training that they have had in computer techniques, either within the

DOD or in other training programs. Our review did not include interviews with The Inspector General or the General Accounting Office.

Our review was, of necessity, broad in scope. We believe, however, that our findings have been sufficient to justify the conclusions and recommendations contained in this report.

GENERAL EVALUATION

We find that the various internal audit groups within the DOD are not well equipped to deal with the challenge of EDP. Training of audit personnel is not specifically directed toward audit techniques to be used in audits of computer installations. As a result, internal audit personnel as a whole lack sufficient orientation in the EDP area. This situation is further aggravated by a lack of specialized EDP technicians within the internal audit groups in the military departments and Defense agencies. Systems common to each of the military departments, some of which would appear to have common processing requirements, are being developed independently and in some military departments without adequate regard for the implementation of proper audit trails and operating procedures.

We noted that the Defense Contract Audit Agency (DCAA) has developed approaches and techniques to utilize EDP systems effectively. This agency has established procedures for the use of a time-shared computer network and has assisted its field auditors in developing techniques designed to obtain maximum information for audit purposes from contractor-

operated data-processing installations. We feel that the DCAA has done a commendable job in this regard, and one which could well serve as a guide for the other internal audit groups of the DOD.

RECOMMENDATIONS

See
page

In view of the fact that the existing EDP auditing capability of the DOD internal audit groups is extremely limited, we feel that the main thrust of our recommendations must be directed toward the development of a capability for both the immediate and the foreseeable future.

Organization

- (1) All EDP audit training activities within the DOD should be under the control and direction of a single organization.
- (2) Personnel who have demonstrated ability in teaching audit techniques for EDP should be transferred to the proposed organization.

6

7

Coordination with other audit and investigative agencies

- (3) Formal lines of communication should be established to insure that proven techniques for effectively auditing computer installations are exchanged among all internal audit organizations within the DOD.

7

Personnel and training

- (4) The staff of the existing internal

- audit groups should be expanded to include personnel with EDP systems design and programming skills and experience. 8
- (5) In order to provide adequate career opportunities for qualified EDP personnel within the internal audit groups, appropriate salary levels for such specialists must be provided. 9
- (6) Training courses should be designed with the objective of ultimately achieving various levels of competence in auditing in the EDP area. All auditors should be exposed to basic courses providing understanding of the computer including an extensive period of hands-on experience in actual operation of computers. 10
- (7) A special study group should be established to evaluate new EDP auditing techniques and to provide guidance to the individual audit groups as to their implementation. 11

Audit programs, procedures, and workpapers

- (8) Standard detailed checklists should be developed for a number of common areas of EDP audit applications as a starting point for evaluating audit trails and operating controls. 12
- (9) A team concept should be developed with respect to audits of computer systems, combining EDP auditing specialists with computer programming and systems specialists. 13
- (10) The Secretary of Defense should require that the implementation of any new major computer-based management information system be approved by the cognizant audit group as to the adequacy of operating controls and audit trails before the system can be implemented. This should be done at an early stage in the system design. 14

Audit coverage and frequency

- (11) Steps should be taken to broaden the use of generalized and specialized computer-based audit programs. 16

Civilian advisors

- (12) At least two knowledgeable civilians from outside the DOD should be appointed, on a voluntary basis, to consult with and advise the DOD on EDP audit policies and practices. 17

DISCUSSION OF FINDINGS AND RECOMMENDATIONS

ORGANIZATION

Training programs dealing with EDP exist in various agencies and departments within the U.S. Government. In some cases, DOD internal audit groups use the facilities of the Civil Service Commission for basic training in computers and computer techniques. Within the DOD, we find that the Navy Department conducts a school in basic computer concepts for executives, and that while some of the other military departments have developed limited EDP training capabilities (e.g., the Air Force's courses for auditors) major reliance is placed on on-the-job training and courses provided by manufacturers of EDP equipment. In such courses, the emphasis is largely upon computer operations, rather than upon the evaluation of operating controls and audit trails or upon the use of the computer in the audit process.

The DCAA, through its Defense Contract Audit Institute (DCAI), has established and promoted courses designed to provide specific training in EDP for audit purposes. Further, the DCAA has established an Advanced Audit Techniques group which includes skilled auditors with extensive EDP training and experience, whose function it is to develop and implement EDP audit applications for the various field audit groups.

Recommendation:

We recommend that all EDP audit training efforts within the DOD be under the control and direction of a single organization.

This organization should offer necessary levels of training to all personnel involved in each of the audit agencies concerned with the audit of management information maintained on data processing equipment.

Each of the internal audit groups within the DOD has some personnel who have had experience in teaching of EDP auditing subject matter. Personnel skilled in EDP systems and their use in achieving audit objectives who also have strong teaching capabilities are rare.

Recommendation:

It is recommended that personnel who have demonstrated ability in the teaching of subject matter related to EDP auditing be transferred to the recommended training organization so that their experience and capabilities can be utilized in curriculum development and eventual presentation of accepted course materials with a minimum loss of time.

COORDINATION WITH OTHER AUDIT AND
INVESTIGATIVE AGENCIES

In applying audit techniques to computer-based systems, a good deal of practical experience has been developed by individual internal audit groups which could be of value to all the groups. The audit techniques adopted and the results of the application of such techniques should not vary significantly from one military department or Defense agency to another. Information dealing with successful (or unsuccessful) applications of specific computer auditing

techniques, and the circumstances surrounding their use, should be of great value to all of the internal audit groups. No formal method presently exists, however, for making such information available to all the internal audit groups.

Recommendation:

It is recommended that steps be taken to develop formal lines of communication that would make available to all the audit groups within the DOD the library of effective applications of each of the individual groups.

PERSONNEL AND TRAINING

With the increasing complexity of computer systems, it becomes more and more difficult to find any one individual with sufficient knowledge of all the EDP and auditing techniques required to perform an adequate evaluation of operating controls and audit trails. This is particularly true in developing computer programs designed to use the computer itself in the audit process. The thrust of our earlier comments, dealing with special EDP training for audit personnel, was directed toward developing a level of understanding that would permit more effective audits of computer installations as well as utilization of computers as an audit tool.

Development of an awareness of specific computer capabilities on the part of an auditor does not at the same time develop within him the necessary skills that would constitute a sufficient level of expertise to deal with the wide variety of possible applications. Such expertise can be found only in individuals who have made a career of computer systems and programming techniques. By coupling the skills

of the professional auditor with the skills of the EDP systems designer and programmer, a capability can be developed that will permit the auditing of any EDP system, no matter how complex.

Recommendation:

It is recommended that the staff of the existing internal audit groups be expanded to include personnel with EDP systems design and programming skills and experience. The addition of such personnel to the present audit staff could result in the adoption of techniques which would significantly increase the effectiveness of EDP audits.

Highly-skilled personnel are always in short supply. Certainly the experience of industry in attempting to retain computer-oriented people has been less than successful, as demonstrated by the high rate of turnover among such personnel experienced by most industrial organizations. It would seem, then, that consideration should be given to maximizing the career potential within the internal audit groups as a means of attracting and holding highly-qualified EDP personnel.

Recommendation:

It is recommended that an adequate career ladder be established for EDP specialists within the internal audit groups. This would require that an adequate number of higher grades be allocated for such specialists to place the DOD in a competitive position as an employer of EDP personnel. This policy would make it possible to attract and retain individuals of the caliber necessary to deal

with the existing challenges of EDP auditing within the DOD. The need for such highly specialized personnel is great. Difficulties in securing high enough levels of compensation under existing grade structures should be discussed at the DOD level with the Civil Service Commission to devise methods of approach.

Although each of the internal audit groups has established a training program designed to develop EDP knowledge and skills among its audit personnel, the only group which has demonstrated any substantial degree of success in this area is the DCAA. The skills which this agency has developed, however, are unique to its own needs, and consequently would have limited application to the other audit groups. For these groups the first problem that must be dealt with is a definition of the appropriate level of training to be provided to each individual auditor. While it can generally be expected that recent university graduates will have had at least limited exposure to computers, it is fairly well established that most auditors who have been in the field for five to ten years have had little or no such exposure.

It would seem pointless to attempt to develop in each auditor a level of skill that would enable him to deal with any EDP auditing problem. It would be more practical to consider providing all audit personnel with a basic level of EDP training and to provide those individuals who demonstrate the appropriate qualifications with the necessary further training to qualify them to direct professional EDP people in resolving audit problems.

The person who is fully qualified both as an auditor and as an EDP specialist is one of a rare species today, and probably will continue to be so in the foreseeable future.

Recommendation:

It is recommended that the curriculum for EDP training be developed along a "two-track" approach. One track would provide exposure to EDP concepts and equipment to all internal audit personnel, such exposure to include sufficient hands-on experience to make the auditor familiar with EDP equipment. A separate and more intensive second track would be desirable for those individuals who have proved themselves qualified for further training as leaders of EDP audit groups.

The computer environment is dynamic and ever-changing, reflecting constant change and improvement in the underlying technology. Proper utilization of computers requires constant preparation for the future. The future, as we now see it, places greater emphasis on timesharing and the use of telecommunication equipment to provide many users in diverse locations with access to large central computer installations. With increasing awareness of the many potential applications for computers in management information systems, there is an obvious need for auditors to gain a better understanding of computers and to learn how to use them in their own audit work.

Recommendation:

It is recommended that a special study group be set up within the DOD to devote itself to the evaluation of current developments in

EDP equipment and techniques and their likely impact on the audit function. Such a group would provide continuing guidance and counsel to the audit groups of the DOD as to the best and most effective techniques and approaches to be adopted today as well as in the foreseeable future.

AUDIT PROGRAMS, PROCEDURES, AND WORKPAPERS

In training auditors to audit EDP systems, it has been our experience that general training in the use of computers for business data-processing purposes does not equip them adequately to check the operating controls of EDP systems. Even the evaluation of internal controls becomes highly specialized in the EDP environment. We have found, however, that relatively detailed checklists specifying, in terms that auditors are accustomed to use, the various control elements and audit trails entailed in any complex EDP system can be of great assistance to auditors. Such checklists can be helpful in providing an "assist" to the auditors in a relatively easy manner.

Such checklists must be developed jointly by auditors and experienced EDP personnel. A number of public accounting firms have developed lists of this type, which might be made available as a first step that could then be adapted as necessary for use by the internal audit groups of the DOD.

Recommendation:

It is recommended that standard checklists be developed for use by field audit personnel in reviewing the audit trails and controls surrounding EDP systems being audited.

Even with the use of detailed checklists and computer auditing programs, as recommended above, auditors with only generalized EDP training will have difficulty in performing an adequate examination of large, complex computer systems. Experience has shown that a skilled, experienced EDP specialist working with the auditors can provide substantial assistance and increase the efficiency of their audit work.

We have previously recommended that experienced EDP personnel be employed to assist in the development of techniques for improving the effectiveness and efficiency of internal auditors in their examinations of EDP systems. As sufficient numbers of such EDP personnel become available, and as the important planning and control functions are increasingly centralized, those personnel should be used to assist in field audits of large, complex computer systems.

A properly implemented approach for auditing "through" the computer - as distinguished from auditing "around" the computer (i.e., by using ordinary manual audit techniques) - should substantially reduce audit effort now extended, since the emphasis would be primarily on reviewing the reliability of the program used for processing the data and on using the computer for actual audit purposes. This approach, however, involves a blending of the skills of the auditor with the skills of the EDP technician in reviewing and evaluating the computer systems and programs for completeness and audit trails, as well as the system of internal control. While this technique is still in its infancy, it will undoubtedly become increasingly common in the future. By

coupling the skills of the auditor with the skills of the EDP systems designer and programmer, the capability of examining any system, no matter how complex, on a continuing basis will be available to the audit group.

Recommendation:

It is recommended that immediate steps be taken to develop, for use in audits of large, complex computer systems, audit teams consisting of a lead auditor, qualified in EDP auditing techniques, supported by necessary assistant auditors as well as individuals with skills in EDP systems design and computer programming.

The historical approach to auditing as practiced prior to the advent of the computer, entailed a review of the accounting system after its design, installation, and operation. Observations as to the effectiveness of the operation of the system would then be made and appropriate corrections or changes implemented.

With the transfer of the functions of data accumulation and summarization to the computer, certain basic changes in concept have resulted. The previous ease and relative simplicity of accounting systems design has disappeared, and changes in design or programming have become extremely costly. Literally hundreds of man-years of effort on the part of a large number of highly-skilled people are required to design and program a complex computer system. Changes resulting from deficiencies in such a system after the system has become operational frequently require many additional man-years of

effort and present many operational problems. Any management information system design which fails to incorporate proper operating controls or to provide adequate audit trails is bound to prove unsatisfactory and is sure to be subject to many changes.

Within some of the military department and Defense agencies we find that the position of the auditor in the design of such systems has been recognized and efforts have been made to involve the auditor in the early stages of system design. The Army Audit Agency and the Auditor General, Air Force have taken commendable steps to establish systems review teams. This unfortunately has not been a matter of consistent application in all the departments and agencies. In some cases, the auditor, although invited to participate in the initial design work, does not review the system until some time after actual implementation. In other cases, substantial systems have been developed without any involvement on the part of the responsible audit group.

Recommendation:

It is recommended that the Secretary of Defense require that the implementation of any new computer-based management information system be approved by the cognizant internal audit group before it can be implemented as an operational field application. Further, the internal audit groups should become involved in the design and implementation effort at a sufficiently early date to assure that adequate audit trails and controls are built into the system.

AUDIT COVERAGE AND FREQUENCY

The general lack of familiarity on the part of field audit personnel with computers and computer auditing approaches has impeded the development of auditing "through" the computer. An attempt has been made by the Air Force to promote this concept, but it is unique in this respect among the internal audit groups of the military departments and Defense agencies. An audit of a computer system is essentially directed at establishing the reliability of the system and, as such, should require substantially fewer audit man-hours than are required under a manual approach, since a great deal of detailed manual analysis can be eliminated by utilizing the computer. It is entirely possible to develop generalized EDP audit systems which could effectively reduce the amount of audit time required by extracting from the data base whatever specific information the auditor desires to examine, as well as to carry out other audit steps by use of the computer itself.

The use of statistical sampling techniques in conjunction with such generalized EDP audit program could further increase the effectiveness of the audit and would probably contribute to a further reduction in the amount of audit time required.

The internal audit groups of the military departments and Defense agencies have made relatively little progress in the use of such techniques. This matter must be given immediate attention if adequate audit capabilities are to be maintained and reasonable efficiency attained. It must be

recognized that substantial training of auditors will be required before measurable gains can be achieved.

Looking to the future, it is possible to consider the inclusion in major systems of specialized audit programs which could accumulate on a continuous basis, independent of program controls, test data for audit purposes.

Recommendation:

It is recommended that the DOD take immediate steps to broaden the use of generalized computer-based audit programs within the individual audit groups. There are presently available approximately 13 program packages of this sort, either through accounting firms or through commercial organizations which specialize in the development of packaged software. While these programs are essentially developmental in nature, they constitute a base from which selections could be made that could be used effectively to meet the immediate needs of the DOD's internal audit groups.

CIVILIAN ADVISORS

We believe that the DOD would find useful the guidance of two or more outside advisors knowledgeable in the auditing of EDP systems and the use of computers in auditing. These advisors could serve on a voluntary basis and should meet on scheduled dates periodically throughout the year. They should be available for consultation and advice on all matters relating to the auditing of computer systems and related matters.

Specifically, these advisors could consider such questions as:

- (1) Approaches to be utilized in audits of computer-based systems.
- (2) Curricula of EDP orientation and training programs for auditors.
- (3) Standards of performance for computer-based audits.
- (4) Frequency of audits of computer-based systems.

Recommendation:

We recommend that at least two knowledgeable civilians from outside the DOD be appointed, on a voluntary basis, to consult with and advise the DOD on EDP audit policies and practices.